

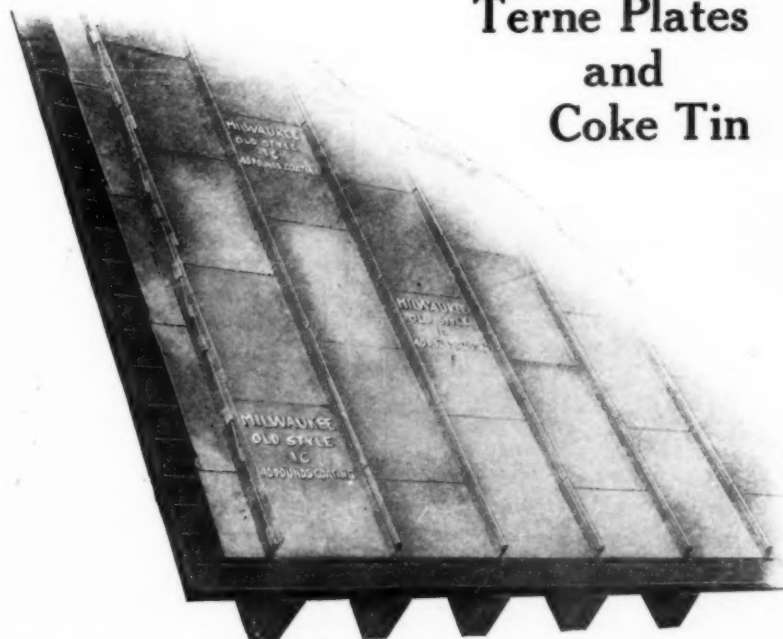
AMERICAN ARTISAN and Hardware Record

Vol. 83. No. 19. 620 SOUTH MICHIGAN AVENUE, CHICAGO, MAY 13, 1922. \$2.00 Per Year.

Did you get yours?

Our new Net Price List illustrates practically our entire line, and there are a number of new things shown in this last one. This is the most complete list and the nicest looking book we've ever printed. If you didn't get a copy, write for it.

Terne Plates and Coke Tin



Milwaukee Corrugating Co.

MILWAUKEE, WIS.

Branch Office and Factory at Kansas City, Mo.
Minneapolis Sales Office, Lumber Exchange



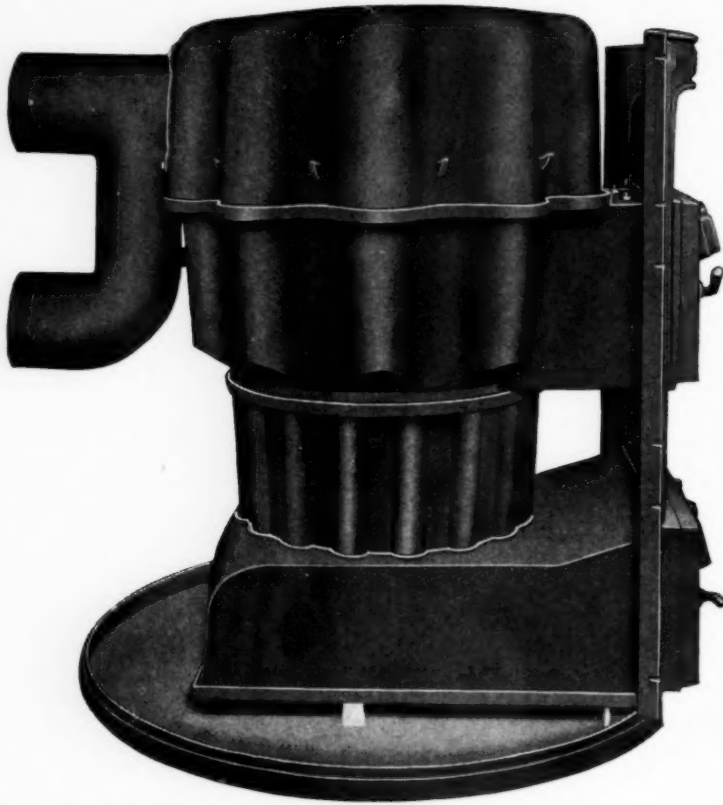
All of our various brands of Terne Plate have Coppered Metal base and are fully guaranteed. Weight of coating stamped on each sheet.

All styles of Metal Roofing also illustrated and quoted in this latest price book.

Our "Aloah" Bright Coke Tin is unexcelled for furnace repair work. Order now. Can make prompt delivery.



THE FARRIS FURNACE with WATER BASE



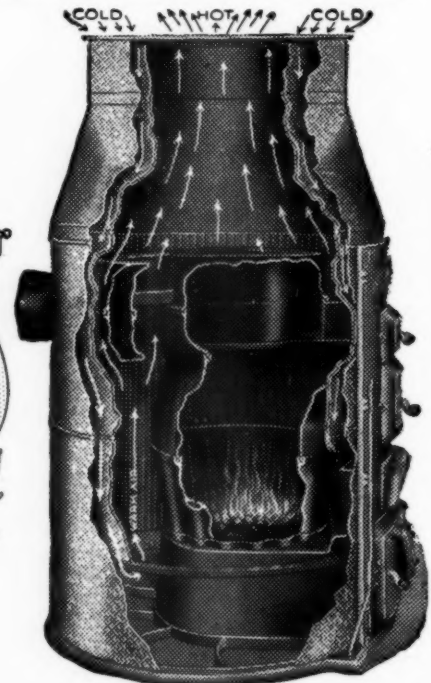
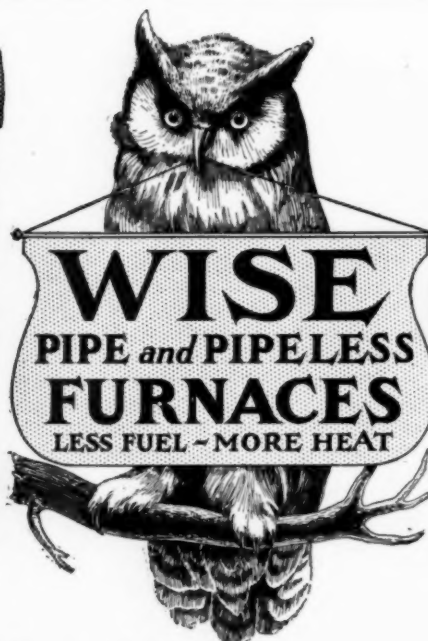
Booth 79
Section G

Indianapolis
Convention

Mr. Farris will be glad
to show you the latest
and best improvement
in warm air heating.

FARRIS FURNACE CO.
SPRINGFIELD, ILLINOIS

The Wide Awake Dealer's Choice



For exclusive territory rights address
THE WISE FURNACE CO. - - AKRON, OHIO

Founded 1880 by Daniel Stern

Thoroughly Covers
the Hardware, Stove,
Sheet Metal, and
Warm Air Heating and
Ventilating Interests

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Vol. 83. No. 19.

CHICAGO, MAY 13, 1922.

\$2.00 Per Year.

HOW THIRTY-TWO DOLLARS GREW TO MILLIONS

William Wrigley, the Spearmint man, possessed \$32.00 in 1890.

Since then he has spent more than twenty million dollars for advertising.

Recently the William Wrigley Company distributed a stock dividend of five million dollars, or one share for every ten held.

To say that Mr. Wrigley believes in advertising is putting it very mildly.

He lives by advertising—his business is based upon advertising.

The product he makes is not a necessity, in the strict sense of the word; people can get along without chewing gum.

But to those who like to exercise their jaws outside of for eating and talking purposes, there is really only one kind of chewing gum—and that bears the name of Wrigley.

Hardware merchants are not urged to stock Spearmint.

But hardware merchants can draw a lesson from Mr. Wrigley's experience, and that is one of the reasons why some men are permitted to score signal successes—that we may learn to do some things in a more efficient way than we have done them before.

There is power in advertising. Millions of people are chewing gum today who would not be doing so if it had not been for Mr. Wrigley's advertising.

And ninety per cent of all gum chewers are customers of Mr. Wrigley. Incidentally, he has helped other gum manufacturers to increase their sales. They reap where he sowed; but that does not worry him.

No one is known so well nor so favorably in any community that advertising cannot make him better and more favorably known.

No hardware merchant can afford not to be a regular, consistent user of printed advertising.

If his business is good, advertising will make it better and more profitable.

If his business is small, advertising will help him—directly—to increase it.

If his business is dragging, advertising will put new life into it.

Always provided, of course, that he and his stock are such as will furnish a proper foundation for his advertising.

The fact that in the past a business has enjoyed prosperity and growth without advertising, is no reason for not starting now to advertise.

That business would have been greater and more soundly established if the owner had been a consistent advertiser.

People buy more frequently and more liberally of the things you have for sale when they are reminded of these things.

Goodwill is more firmly established when based upon a reputation for reliable merchandise and honest dealings coupled with a consistent policy of advertising.

New trade is developed by advertising. New lines can be established more quickly and less expensively by advertising.

Be a consistent and regular user of advertising space in your local newspaper.

It always pays—in bigger sales and profits.

Random Notes and Sketches.

By Sidney Arnold

DO not let people get a wrong idea of what you are selling either by exaggerating it or by describing it imperfectly, is the advice given by J. Harvey Manny of Manny Heating Supply Company, Chicago, Illinois. He furnishes this example:

A woman, wearing an anxious expression called at an insurance office one morning.

"I understand," she said, "that for \$5 I can insure my house for \$1,000."

"Yes," replied the agent, "that is right."

"And," continued the woman, anxiously, "do you make any enquiries as to the origin of the fire?"

"Certainly," was the prompt reply.

"Oh!" and she turned to leave the office. "I thought there was a catch in it somewhere."

* * *

Someone asked C. F. Nason of Grand Rapids, vice-president, Michigan Auxiliary, what is meant by "intrinsic value."

He defined it with a story of a Michigan lad who was selling a litter of puppies.

"How much are those puppies worth, little boy?" asked a young woman, stopping.

"A dollar apiece, except that one, and he's a dollar ten. He swallowed a dime yesterday."

* * *

J. Edwin Ellis, Secretary and General Manager of the Independent Stove Company, Owosso, Michigan, has in the past performed the duties of credit man, so he is well qualified to speak about this class of important executives.

He is free to admit that a good credit man can often and in many cases actually does produce additional profits for his company, but that most salesmen are inclined to look upon the credit man as the "grouch" of the office..

Ellis sent me this clipping which gives a very accurate description of how the average man in an organization looks upon the credit man:

If he refuses an account, he's crazy;

If he accepts it, he's easy;

If he asks questions, he's suspicious;

If he doesn't, he's a trusting soul;

If he makes you pay, he's unfeeling;

If he lets it run, he's careless;

If his percentage of loss is high, he's no good;

If it is low, he won't take a chance;

If he raises a kick, he's a crab;

If he keeps still, he doesn't know he's alive;

If he wants to increase departmental expense, it's absolutely unnecessary;

If he stays in the old rut, some young hot-air artist gets his job.

There are born salesmen, born financiers, born buyers, but who in Kingdom Come ever heard of a **born Credit Man?**

* * *

R. C. Cook, Treasurer of Thatcher Furnace Company, does not very often tell stories, but when he does, it is a good one.

Here is one I heard him relate during the recent convention of the National Warm Air Heating and Ventilating Association in Cleveland:

A traveler who believed himself to be the sole survivor of a shipwreck upon a cannibal isle hid for three days, in terror of his life. Driven out by hunger, he discovered a thin wisp of smoke rising from a clump of bushes inland, and crawled carefully to study the type of savages about it.

Just as he reached the clump he heard a voice say: "Why in hell did you play that card?" He dropped on his knees and devoutly raising

his hands, cried: "Thank God, they are Christians!"

* * *

A lesson of mercy toward their offspring for parents who saddle them with undesirable names is contained in the following item sent me by A. M. Doll, treasurer Lovell Manufacturing Company, Erie, Pennsylvania:

A Mobile ducky was asked what name he had given his youngest son.

"Erasmus Pro Tem Johnson, suh."

"But why the 'Pro Tem'?"

"Well, suh, dat am to show de name am only temporaneous, suh. We figgered as how Erasmus might want to choose his own name when he growed up, so we put in 'Pro Tem' as a warnin' to de public."

* * *

Make your advertisements sincere and to the point, is the advice of W. I. Buchanan, advertising manager of the Malleable Iron Range Company, Beaver Dam, Wisconsin. Keep it free from false notes, he adds.

By way of illustrating what he means by "false notes," he submits the following announcement:

Married—At the residence of the bride's father, on the N. W. corner of Ash and Windham streets, being the only three-story pressed brick house in the block, Lizzie Jane, youngest and only daughter of Dr. Ichabod Cornelius Spooner, discoverer and sole owner of the famous Spooner Cough Chaser, price 35c per bottle—to J. Mortimore Smith, eldest and only son of Hon. Sylvanus Lincoln Smith, esq.

* * *

Don't Double the Trouble.

If to me you tell your troubles
And if I tell mine to you,
Each in a moment doubles
The crop that first he grew.
The world will seem vexatious,
We will long for distant spheres,
As we seek a spot more spacious
To accommodate the tears.

If a cynical impression
Dominates your state of mind,
Don't obstruct the joy procession
For the rest of human kind.
Some hopes are only bubbles,
But we all desire a few;
So, please don't tell me your troubles
And I won't tell mine to you.
—Washington Star.

Annual Convention of National Association of Stove Manufacturers Has Confidence in Business Revival.

The Association Is Entering upon the Second Half Century of Its Existence With Increased Vitality and Greater Usefulness.

BEGINNING the first year of the second half century of its existence, the National Association of Stove Manufacturers gathered in Convention at the Hotel Astor, New York City, May 10th and 11th, with a deepened conviction of the value of the philosophy upon which the organization is based, namely, "principles, not rules."

The remarkable vitality of the Association and its successful maintenance for more than half a century can be attributed to no other



Robert M. Leach, Re-elected President.

cause than the carrying out of this great motto in which rules and regulations and passing expedients are made subservient always to principles.

The stove industry has prospered because the members of the National Association of Stove Manufacturers have consciously applied the philosophy of their organization to the operation of their plants.

The fifty-first annual meeting of the Association afforded opportunity to the members for reaffirming their faith in the practice of principles and for discussion of technical matters relating to the welfare of the stove industry.

The first session of the convention was devoted to routine matters and reports of committees. The keynote of the meeting was sounded by Robert M. Leach, in his annual address as President of the organization.

His message to the convention is herewith reproduced in full:

Annual Address of President Robert M. Leach.

"We are meeting today in our fifty-first annual convention. The first year of the second half century has been a most difficult one. The period of readjustment is always difficult.

"We were working on war-time costs and trying to reduce our prices to meet the demand of the public. Even with reductions in prices they would not buy, and in many cases, could not on account of unemployment.

"Considerable reduction has now been made in selling prices, also in material and labor, and it is doubtful if there will be much more reduction for some time, but further readjustment will be gradual.

Costs, however, must be reduced still farther if we are to show a balance on the right side of the ledger.

"This same readjustment occurs also in our financing.

"The business failures increased each month during the year, until January, 1922, showed the greatest number of any one month since January, 1915, but in the past few months there has been a decline.

"General business in 1922 is showing improvement in many lines and each month seems to be better than the corresponding month of a year ago.

"Therefore, I venture the prediction that this year will bring more normal conditions; that business has turned the corner and is on the road to recovery.

"The war taught us some lessons on cost and eliminations, but have we made the most of them?

"The Government compelled us to cut down our lines fifty per cent—this to save investment, increase production, and lessen costs, but I doubt if there is a manufacturer who has not a larger line today than when the war ended.

"The Secretary of Commerce has been working along this line and you will be privileged today in



Robert S. Wood, Re-elected Secretary.

hearing from one of Secretary Hoover's assistants, Mr. Durgin, just what the Government is trying to accomplish in the Bureau of Standards for the benefit of industry.

"We should all make a special effort to hear him, as this subject is vital to our industry.

"Last May you instructed the Secretary to gather statistics from our members, and President Van Cleave appointed Messrs. Myers, Moore, and Mitchell as a committee to prepare the questionnaire, with the result that the questionnaire was, to my mind, as nearly perfect as possible.

"The results obtained, which will

be set forth by the Secretary in his report are rather disappointing.

"Either you do not keep those records, or you do not care to give them out.

"Every manufacturer should have been able to answer those few simple questions, and you certainly could not have given them to a more trustworthy man than Secretary Wood.

"Certainly the Government does not object, in fact, encourages the gathering of statistics in an industry, when such statistics are not used in adjusting selling prices.

"When Mr. Hoover became Secretary of Commerce, he found the Bureau of Census behind in its methods. Its work was of very little immediate service. Its analysis of conditions in some of our major industries were made only at four or five year intervals, and not published for a year or more after gathering, and then only in dollars.

"But the figures now gathered by the Bureau are far more frequent, and are published in about ten days after they are received, both in terms of commodities, as well as dollars; and I believe the time will come when the Government will ask all manufacturers to file frequently some figures regarding their business, and I feel sure there is some advantage to us all to know the trend of the stove business from time to time in different parts of the country.

"In reviewing the other work of the year I must first call your attention to that done by your Secretary.

"His report will show some of this work; he has visited our manufacturers frequently in all sections of the country, helping many with their cost problems and at the same time following closely all rulings of the Government regarding associations and business, and notifying you immediately everything of importance.

"Your attention should also be called to the work of your Traffic Manager. I have encouraged his visiting all local associations at least

once during the year, and explaining to them freight conditions in the country. Most of our members do not use that department enough.

"If you have any local freight troubles, excessive breakage or delayed shipments in any section, you will get relief by advising Mr. Owen. His report will show some of the work he has been doing.

"We have continued the custom of quarterly Secretaries' Meetings, your President, Secretary and Traffic Manager being present at each meeting.

"They were held at Buffalo in August, in New York City in No-



W. G. Terstegge, Elected to Executive Committee.

vember, in Richmond, Virginia, in February and yesterday at this hotel.

"These Secretaries' Meetings can do a great deal of good for the stove industry, but not unless you will coöperate. Some must have conditions which bother them in other sections of the country. Why not have your local secretary bring these up at a Secretaries' Meeting, then each secretary can get the full information and bring it up to his local members and report back?

"An example of this work was in enamel ranges. Some manufacturers were using seven different colors.

"A suggestion of two colors was made and brought up at a Secretaries' Meeting, discussed and each secretary brought it before his local and it was reported back at our next meeting that every section of

the country but one would adopt two colors, and that section would work to that end.

"The local secretaries' reports will give you more information about their work.

"It is very gratifying to learn from our secretaries that we have not lost a single member by death during this year. I certainly hope we will be as fortunate during the coming year.

"Before closing allow me to thank the members for the very pleasant times I have had while visiting local association meetings—in September with the Western Central at St. Louis and again in January at Chicago; the Empire Association in September at Rochester, New York, the Maryland and Virginia in February at Richmond, Virginia, and last but certainly not least, the hospitality of the South was demonstrated at the meeting of the Southern Association at Nashville, Tennessee, which I attended in February.

"Also let me thank you all for the cordial support you have given our officers during the year."

At the conclusion of President Leach's thoughtful address came the Treasurer's report, the report of the Secretary, the Traffic Commissioner's report, and the report of the Executive Committee.

Wednesday afternoon's session was devoted to the subject of simplification of production and design and to a study of the methods for preventing loss and damage to stoves.

Advantages of a cost adviser in local associations, the elimination of a large variety of enamel colors, and the value of credit bureaus in each local association were the main topics which occupied the attention of the delegates during the concluding session of the Convention.

The officers for the coming year were then elected as follows:

President: ROBERT M. LEACH, Weir Stove Company, Taunton, Massachusetts;

First Vice-President: GEORGE D. WILKINSON, Cribben and Sexton, Chicago, Illinois;

Second Vice-President: HENRY J. KARGES, Indiana Stove Works, Evansville, Indiana;

Treasurer: SHERMAN S. JEWETT, Jewett and Company, Buffalo, New York;

Secretary: ROBERT S. WOOD, Troy, New York.

Executive Committee: WILLIAM

HENRY WARREN, Chairman; J. P. BARSTOW, ROBERT G. BRYAN, E. T. HARRISON, FRANCIS PALMS, J. T. TEMPLETON, and WALTER TERSTEGGE.

The next annual meeting of the National Association of Stove Manufacturers will be held at Richmond, Virginia.

the application of this method of conference and agreement in the stove industry.

The proceedings of the meeting were in the nature of an executive

Stove Founders' National Defense Association Holds Its Thirty-seventh Annual Convention.

By Practicing a Policy of Arbitration, the Association Has Maintained Peace and Good Will in the Industry.

IN THESE days of social and industrial unrest, with bombings, strikes, lockouts, and consequent distress and bitterness in many producing centers, it is most reassuring to find the principle of arbitration

the purpose of finding common ground upon which they could amicably adjust their differences. A conference was formed of twelve members, consisting of six from each organization.

The principle of arbitration was adopted as the logical method of settlement of any disputes which might arise between the members of the International Molders' Union of North America and the Stove Founders' National Defense Association.

In the first conference it was decided by the Presidents of the two organizations and the Conference Committee that neither party to the dispute should discontinue operations, but should proceed with business in the ordinary manner.

The following year the Conference of 1892 agreed that the general rate of molders' wages should be established for each year without change.

Throughout the succeeding years, other agreements were reached which have had the effect of maintaining peace and good will in the stove industry.

The workers have enjoyed uninterrupted prosperity, freedom from uncertainties, hardships, and rancor of strikes and lockouts.

The thirty-seventh annual meeting of the Stove Founders' National Defense Association reaffirmed the principle of arbitration and expressed confidence in the continuance of the advantages which have been derived during the past from



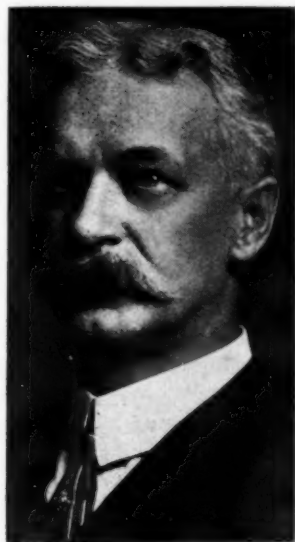
Robert W. Sloan, Reelected Secretary.

session at which the following officers were re-elected for the ensuing term:

President: GEORGE MITCHELL, of the Pittston Stove Company, Pittston, Pennsylvania;

First Vice-president: JOSEPH L. ANTHONY, of the Weir Stove Company, Taunton, Massachusetts;

Second Vice-president: LEWIS



George Mitchell, Reelected President.

in full working effect through the Stove Founders' National Defense Association.

The thirty-seventh annual meeting of this organization, held May 9th in Hotel Astor, New York City, marks the uninterrupted maintenance of peace and good will in the stove industry through the principle of arbitration between employers and their men.

It was in 1891 that representatives of the Stove Founders' National Defense Association and of the International Molders' Union of North America came together for



D. Rait Richardson, Reelected to General Executive Committee.

MOORE, of Moore Brothers Company, Joliet, Illinois;

Treasurer: WILLIAM DWYER, of the Art Stove Company, Detroit, Michigan;

Secretary: ROBERT W. SLOAN, Scranton, Pennsylvania.

General Executive Committee.

GEORGE MITCHELL, Pittston, Pennsylvania;

JOSEPH L. ANTHONY, Taunton, Massachusetts;

LEWIS MOORE, Joliet, Illinois;

WILLIAM A. DWYER, Detroit, Michigan;

RICHARD E. WARNER, Taunton, Massachusetts;

D. RAIT RICHARDSON, New York City;

JAMES MITCHELL, Cleveland, Ohio;

LEE W. VAN CLEAVE, St. Louis, Missouri;

W. T. BARBOUR, Detroit, Michigan.

District Committees.

First District:

J. L. ANTHONY, Taunton, Massachusetts;

A. W. WALKER, Boston, Massachusetts;

R. E. WARNER, Taunton, Massachusetts;

J. P. BARSTOW, Providence, Rhode Island;

FRANKLIN LAWRENCE, Portland, Maine.

Second District:

J. A. LANSING, Scranton, Pennsylvania;

E. F. HILL, Peekskill, New York;

F. N. BRAYER, Rochester, New York;

PAUL BROOKE, Royersford, Pennsylvania;

W. M. JONES, Richmond, Virginia.

Third District:

GEORGE H. BARBOUR, Detroit, Michigan;

JAMES M. DWYER, Detroit, Michigan;

W. T. BARBOUR, Detroit, Michigan;

DAVID F. KAHN, Hamilton, Ohio;

H. J. KARGES, Evansville, Indiana.

Fourth District:

N. H. BURT, Leavenworth, Kansas;

L. W. VAN CLEAVE, St. Louis, Missouri;

LEWIS MOORE, Joliet, Illinois;

GEORGE D. WILKINSON, Chicago, Illinois;

T. P. CASTLE, Quincy, Illinois.

The Stove Founders' National Defense Association has amply jus-



Lee W. Van Cleave,
Reelected to General
Executive Committee.

tified its existence during thirty-seven years of its activities. The fact that its members have been able to pass through the recent period of readjustment without serious industrial conflicts of any description is the highest tribute that can be paid to their wisdom in carrying out the principle of arbitration.

Month of April Breaks Record of Michigan Stove Company.

From the point of view of business transacted, the month of April signaled the biggest achievement of the Michigan Stove Company, Detroit, Michigan, in its half century of production.

The Michigan Stove Company makes the "Garland" stoves, ranges, and warm air heaters; and its April business was not only the biggest in the actual dollars and cents value of shipments, but also in units shipped and in volume of new orders received.

The Garland business for the first four months of the year, as compared with 1921, shows an increase in pay roll of 86 per cent, an increase in unit shipments of 135 per cent and an increase of iron tonnage melted of 410 per cent.

This increase has been general in all parts of the country, the vol-

ume being particularly noticeable on the Pacific Coast, the Middle Atlantic states, and the Middle West.

Oldest Employee of Borden Stove Company Passes Away.

Announcement is made by the Borden Stove Company, Philadelphia, Pennsylvania, of the passing away of Clark B. Smyth which occurred Saturday, May 6th, at his residence in Pensauken, New Jersey.

Mr. Smith was the oldest employe and associate of the Borden Stove Company and his loss is deeply felt by everyone connected with the company.

One Yell Is Better Than Five Whispers.

In case you have not heard the story and applied its lesson, here is the example:

The story is told of a man who had a message for everyone in an auditorium. He wanted to tell the people about his attractive proposition.

He went to the man at the door and said: "How much will you charge me to whisper?"

"I will charge you \$5 to whisper," said the doorman.

"How much will you charge me to yell?"

"I will charge you \$25 to yell."

The man decided he would take five whispers.

When you are spending your money for advertising, spend it for results.

When an expensive mailing or large space is needed it is penny-wise policy to "economize."

When outside aid is needed, such counsel should be secured. It pays!

A spaghetti manufacturer, planning to market his product in Cuba, has learned that the duty on spaghetti is quoted at so much per kilo. He is trying to find out whether this refers to kilograms or kilometers.—The Credit Monthly.

Events and Progress of the Hardware Trade.

**What the Retailers, Jobbers and Manufacturers Are Doing.
Latest Selling Methods and Experiences of Successful Men.**

Advertising Convention Will Benefit Retail Dealers.

The annual convention of the Associated Advertising Clubs of the World, which will be held in Milwaukee, Wisconsin, June 11 to 15 will, in reality, be a group of twenty-five important advertising conventions in one, for during half the time, it will divide itself into sectional meetings for the close-up study of the individual advertising problems of those who attend.

The national program committee, which has charge of the program, feels that it is especially important, this year, that business men have opportunity to throw their own problems into the meetings, and much time will be devoted to the sectional gatherings.

One of the most important of these group meetings will be that at which newspaper advertising will be discussed, both by advertisers and newspaper men, and the advertising agents of the country are planning to dismiss their special group meeting for one-half day, at least, to attend the meeting on newspaper advertising.

Sessions for retail advertisers will be addressed by the managers of stores whose sales have materially increased during the last few months when business generally had been harder to get, and they will tell in detail how they have applied advertising to their selling problem, creating new sales and new customers through the power of the printed word.

Such stores have found that when sales are harder to make is the time of all times when they should advertise with the most vigor, not only using more advertising space, but making the best possible use of that which they do employ.

In these and all the other divisions of the conventions, the program committee plans for the 5,000 or 6,000 business men who will attend to go a little deeper into the problems of business than at previous advertising conventions, and not only will advertising be studied intensely, but attention will be devoted to the many things in business management which must dovetail with good advertising to make it pay best.

supplies in his advertising and who lets the public know that he is prepared to serve them intelligently is laying the foundations for a permanent and profitable income from the sale of radio supplies.

At the present stage of development, it does not require a heavy investment to lay in a stock of radio supplies to meet the average requirements of the day.

A suggested radio stock including Audion sets as well as Crystal sets can be bought for less than five hundred dollars.

RADIO SUPPLIES

7-Strand Copper Aerial Wire, 100 feet, 85c.	2200 Ohm Ameri- can Head Sets, \$8.
Pur-A-Tone Cry- stal Detector, \$2.25.	43-Plate Murdock Condenser, \$4.50.
Keystone Radio Lightning Arrester, \$2.	Brack Lightning Arrester, \$2.50.
	Condenser Plates, each, 3c.
American Ever Ready "B" Batteries, 23, 43 and 45 volt.	
Crystal Sets, \$15.00 and up	
Complete Radio Outfits for immediate Delivery.	

KRAUT & DOHNAL
325 South Clark St.

Advertisement of Kraut & Dohnal,
Hardware Dealers, Reprinted from
The Chicago Daily News.

The things most commonly in demand are shown in the two advertisements of Chicago dealers reproduced herewith.

They contain suggestions which will help you in making up your copy for advertising radio supplies.

It is not necessary that you should mention all the various articles which you have in your stock.

It is best, as in the case of the Stebbins Hardware Company and Kraut and Dohnal, to list eight or ten articles which are in demand, and let them be the leaders that conduct the buyer toward other radio supplies which you carry in stock.

In the April 8, 1922, issue of AMERICAN ARTISAN AND HARDWARE RECORD, appeared an editorial

Get in on Ground Floor of Radio Trade by Featuring Its Supplies in Your Advertising.

*You Can Derive Some Suggestions of What Kind of Copy
to Use from the Advertisements of Two Chicago Dealers.*

YOU can get in on the ground floor of the radio supply trade by beginning right now to feature radio supplies in your advertisements.

It is a certainty that wireless telephony and wireless telegraphy are not fads which depend upon the more or less fickle sentiment of the public.

On the contrary, they are established agencies of communication which are sure to undergo great improvements as time goes by.

The wireless is here to stay.

It is going to become part of every household and will be made a permanent factor in the education and development of public opinion.

Logically, the hardware store is the natural medium of distribution for radio supplies.

Many of the things used in wireless telephony are staple commodities in the average hardware store.

The hardware dealer, therefore, who begins now to feature radio

bearing the title, "You Can Sell Radio Equipment and Supplies."

In that editorial, we pointed out that you do not need to make a heavy investment in radio outfits.

In fact, you were advised not to spend much money at first in stocking up, for the reason that government rules were about to be issued regulating the use of various wave lengths, and stating that, therefore, the cheaper grades of receiving sets

for amateur telegraphy and telephony and for technical training schools, the amateur having exclusive rights to 150-200 meters, while the training schools must use 200-275.

There is also restricted special wave of 310 meters for special amateur radio telegraphy, this to be used by a limited number of inland stations, and only where it is necessary to bridge sparsely populated

primarily to recommend government control, the report suggests that Secretary Hoover be authorized to govern the establishment of all radio transmission stations except amateur, experimental and government, and also the operation of non-governmental stations.

These recommendations will be carried out in the bill now being drafted by Representative White of Maine.

The conference passed resolutions declaring radio communication a public utility that should be controlled by the government, and recommended that "the type of radio apparatus most effective in reducing interference should be made freely available to the public without restriction."

There was such a demand for wave bands that the conference disapproved "of the elimination of essential services by the introduction of indirect advertising which might be expected to require extensive assignment of wave bands if permitted at all."

It decided that indirect advertising should be limited to a statement of the call letter of the sending station and of the name of the concern responsible for the matter broadcasted, even this to be subject to further regulation under the proposed control.

"Point to point" communication or communication between two fixed points, instead of general broadcasting, is discouraged by the conference, which says this method should not be used when other means are available—for instance, the land telephone and telegraph. The conference thinks too much air space is used in "point to point" work.

Recommendations are made that the Secretary of Commerce assign to each radio telephone broadcasting station a power range of 600 land miles for government stations, 250 miles for public broadcasting stations, and 50 miles for private and toll broadcasting stations; that the same wave band or overlapping wave bands should not be assigned to stations within these distances of

STEBBINS	
<i>Quality Radio Supplies</i>	
HEAD SETS 2,000 to 3,000 Ohms, \$6.00 to \$10.50	B. BATTERIES 22½ Volt \$2.25 Variable Voltage... \$3.00
CONDENSERS 23 Plate, Variable.. \$3.75 43 Plate, Variable.. \$4.50 Variometers \$4.50 Varicoupler \$4.50 Binding Posts10	A. BATTERIES 6 Volt. 40 Amp. Radio Storage Batteries, \$11.50 SWITCHES 6 Point \$1.35
Stebbins Hardware Co. 15 to 21 W. VAN BUREN STREET JUST WEST OF STATE ST.	

Advertisement of Stebbins Hardware Company, Reproduced from The Chicago Daily News.

would have to be changed to conform with the requirements.

The government regulations are practically in shape now for adoption.

The hardware dealer who decides to add this profitable line to his business is advised carefully to read the following report from the radio telephone conference:

This conference, called some time ago by Secretary of Commerce Hoover to help solve the present chaos in the air, on April 27th, rendered its final report, on which will be based control legislation to be asked of Congress. The report is the outgrowth of tentative suggestions made a month ago by experts and subsequently reviewed.

Under the final report a wave band of 150-275 meters is assigned

areas or to overcome natural barriers.

"It is recommended," says the report, "that the wave band assigned to amateurs, 150 to 275 meters, be divided into bands according to the method of transmission, damped wave stations being assigned the band of lowest wave lengths, interrupted or modulated continuous wave radio telegraph stations the next band, radio telephone stations the next band, and finally, unmodulated continuous radio telegraph stations the band of highest wave lengths.

"It is recommended that amateurs be permitted to carry out broadcasting within the wave lengths assigned by the Secretary of Commerce to amateur radio telephony."

As the conference was designed

each other; government, 1,500 miles; public, 750 miles; and private and toll, 150 miles.

Special recommendations pertaining to amateurs offered by the conference are that the status of the amateur and the limits of the wave band allotted to him be specified by law; that the amateur continue under the jurisdiction of the Department of Commerce, and that for the purposes of self-policing among the amateurs, amateur deputy radio

inspectors be created, elected from their number by the amateurs of each locality.

The conference adopted at its final meetings a new provision recommending that the operation of government stations be conducted in such a manner as not to interfere with commercial traffic and broadcasting.

The report recommends the appointment by the President of an advisory committee to the Secretary

of Commerce to consist of 12 members, half of whom shall be from the government and half from civil life.

The general allocation of wave lengths provides: Transoceanic service, 6,000 meters; fixed radio telephony, non-exclusive, 3,300; mobile service, non-exclusive, 2,650; government broadcasting, 2,050; aircraft, 1,550; city and state public safety broadcasting, exclusive, 285; amateur, 275.

Suggestions and Plans for Window Displays.

Instructive Examples from Exhibits in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition.

WINDOW EXHIBIT GETS FOURTH PRIZE.

People whose lives are out of order are in the habit of nodding approval to the statement that the human race has made little progress through the centuries.

They give full assent to the assertion that our civilization is only a veneer and that if you scratch the average human being, you find the barbarian close to the surface.

Actually, such folk believe that there is only a thin wall of conventionalities between us and the ages of savagery.

Prehistoric man did not eat at a table covered with immaculate lin-

en and equipped with plates and cups and saucers and other table ware.

He ate his meat from the bone and had no finger bowls at the end of the repast.

When he advanced far enough to use cooking vessels, they were crude, drab and inartistic.

No matter what bilious people may say to the contrary, we have traveled a long way from the stage of development of the days when our ancestors stood on their hind legs and began to gnaw at bones.

The sanitary kitchen of today with its shining cooking utensils, its white enameled ranges, and its

attractive equipment, is as much a proof of permanent civilization as universities and newspapers.

The snow white kitchen ware shown in the accompanying photograph of the window display arranged for the Bunting Hardware Company, 810 Walnut Street, Kansas City, Missouri, by Otto J. Gress, is universal in its message to the people of today.

This window display was awarded fourth prize in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition.

It conveys the impression of cool cleanliness to the eye of the observer.



Window Display of White Enameled Ware Awarded Fourth Prize in American Artisan and Hardware Record Window Display Competition. Designed and Arranged by Otto J. Gress for Bunting Hardware Company, 810 Walnut Street, Kansas City, Missouri.

Not only do we no longer gnaw at bones, but, as the saying has it, we have learned to eat with our eyes.

Our appetites are stimulated by the way in which food is cooked and served.

The sight of snow white kitchen utensils actually stirs one's hunger and makes food more savory.

The window display under discussion is arranged in such fashion as to heighten the persuasiveness of this white enameled ware, because the commodities are shown in connection with their use in the kitchen.

There is a white kitchen table, a white kitchen cabinet, a white enameled ice box and a kitchen range with white enameled door panels.

The principle of the association of ideas is, therefore, employed with good effect.

It is easy to visualize this beautiful white enameled ware in one's own kitchen after observing it in this window exhibit.

Worthy of especial praise is the care which Mr. Gress exercised in avoiding the use of too many articles in making up this display.

It will be noted that there is plenty of space between the various objects in the window, so that the eye is not harassed by a multiplicity of details.

The passer-by sees a composite picture of a sanitary kitchen free from the distraction of anything foreign to the message which this window display is designed to convey to him.

Excellent application is made of the manufacturer's posters in order to give emphasis to the brand of white enameled ware on exhibit.

The placard on the floor of the window underneath the cut-out figure of the house wife bears the significant title of "The Kitchen Beautiful."

As described by Mr. Gress, who designed this display, the floor is covered with blue and white wall paper giving a tile effect.

The blue and white lawn curtain near the center of the background adds a home-like touch.

The neutral color of the background serves admirably to enhance the whiteness of the objects in the display.

As a logical consequence of the character of this window display, sales of white enameled ware were greatly increased during the time that this exhibit was in the window.

Window advertising is gainful if it is done intelligently and with due observance of the principles of salesmanship.

The hardware dealer who wishes to build up a lucrative trade would do well to study carefully this prize-winning window display.

Chicago Invites You to the Pageant of Progress.

The Second Annual International Pageant of Progress Exposition, at Municipal Pier, Chicago, Illinois, opening Saturday, July 29, and closing Monday, August 14, 1922, holds promise of being more successful, both in point of exhibits and attendance, than the remarkable event of 1921.

Last year every foot of the 3½ miles of exhibit booths was occupied by commercial, industrial, and educational exhibits, and the attendance reached the million mark.

This year the exhibits will be even more extensive, better organized and more attractive, and an attendance in excess of 1,500,000 is being provided for.

The entertainment features, remarkable as they were last year, will excel anything hitherto attempted in Chicago. In character and magnitude they will be in keeping with this great Exposition.

Spectacular events, in the air, on land and water, morning, afternoon and evening, will add materially to the enjoyment of a visit to the Pageant.

Buyers have come to realize that it is possible to transact more business in one day at this great trade Exposition than can be done elsewhere in thirty days, in ordinary circumstances. They come from all parts of the world with the assurance of seeing the latest and best products and wares of America's

leading manufacturers and dealers.

Indications are that the attendance of buyers this year will greatly exceed that of last year, and last year's showing was regarded as satisfactory. These are facts that no progressive business man can afford to overlook.

Among other notable developments in connection with this year's Exposition will be the establishment of a section devoted exclusively to the Exhibits of foreign governments.

In the "Concourse of Nations" will be found the official representative of practically every civilized country in the world. This marks the advent of the Pageant of Progress Exposition as an annual event of international significance.

As an educational institution the Pageant of Progress Exposition affords superior advantages for the observation and study of progress not only in commerce and industry, but also in the arts and sciences.

The leading educators of the Central West, headed by President Kinley of the University of Illinois, are giving their best thought and effort to the educational features of the Exposition.

Governmental departments, federal, state and municipal, are preparing exhibits of highly interesting and informative character.

Incorporated as a part of the Pageant is the Health and Sanitation Exposition, the most extensive and complete demonstration of its kind ever presented.

A distinctive feature of the latter will be the \$50,000 health exhibit consisting of mechanical models and numerous other ingenious and educational devices developed by the national magazine, *Health*.

Chicago invites you to attend the Pageant of Progress Exposition and the suggestion is offered that you make Pageant time your vacation time. Come and see the Pageant, and, incidentally, enjoy the superior advantages that Chicago offers as a summer resort.

Promises that are hardest to obtain are surest of fulfillment.

Emphasizes the Importance of Trade Journals.

News as it is given to the public by the newspaper, trade journals and other publications of the country is the mainspring of prosperity and is fundamental to our civilization. First Assistant Postmaster General Bartlett declared in addressing the Marion, Ohio, Chamber of Commerce in connection with observance throughout the country of "Postal Improvement Week."

One of the chief aims in the administration of the postal system, he explained, was to see that the people received their newspapers and trade journals promptly and regularly and the department invited, he added, criticism and information as to any delay in transit.

How Do Your 1922 Sales Figure in Comparison with Other Years?

The months of January, February, March and April of 1922 showed sales totals for the Chandler Hardware Company, Sylvania, Ohio, each of which was greater than for the corresponding months of any other year of their more than thirty-one years' experience.

The first two weeks of April, 1922, almost equaled the entire month of April, 1920, which showed sales of \$20,000—the biggest month they ever had.

How do your sales compare with this record?

Can you show records which show a similar growth?

And keep in mind that the Chandler Hardware Company does business in a town of less than 1,700 people, located only eleven miles from Toledo, with electric car and auto bus service every half hour during the day between Sylvania and Toledo.

John H. Patterson, Head of National Cash Register Company, Passes Away.

Taken suddenly ill on a train, John H. Patterson, Chairman of the National Cash Register Com-

pany's Executive Committee, passed away a few days ago.

Mr. Patterson relinquished the arduous labors of the presidency about two years ago and spent most of 1921 in Europe.

It is quite within the limits of fairness to state that very few men have had as much to do with improving the accounting methods of the retail merchants all over the world as Mr. Patterson, if indeed anyone else can be put in the same class.

Who Makes "Higrade" Refrigerator?

TO AMERICAN ARTISAN AND HARDWARE RECORD:

Will you kindly tell me who manufactures the "Higrade" refrigerator?

Yours truly,

E. E. BENNETT.

—, Florida, May 2, 1922.

It Was No Wonder That This Dealer Failed.

(1) He did not keep up with the times.

(2) He tried to do everything himself.

(3) He tried to save by hiring cheap help.

(4) He looked at every system as red-tape.

(5) He strangled his progress by cheese-paring economy.

(6) He did not think it worth while to look after little things.

(7) He ruined his capacity for larger things by burying himself in detail.

(8) He did not take an inventory twice a year.

(9) He did not have confidence in his helpers.

(10) He had no time for relaxation.

Tests Show That Black Letters Are Most Easily Read on Yellow Stock.

Investigators have made careful tests to determine the legibility of printing on colored papers, the distance, size and form of type used and other factors being identical.

The following list shows their findings in order of legibility. Note that black and white occupy fifth place.

1. Black letters on yellow paper.
2. Green letters on white paper.
3. Blue letters on white paper.
4. White letters on blue paper.
5. Black letters on white paper.
6. Yellow letters on black paper.
7. White letters on red paper.
8. White letters on green paper.
9. White letters on black paper.
10. Red letters on yellow paper.

Coming Conventions

Western Warm Air Furnace and Supply Association, Indianapolis, Indiana, May 15, 1922. John H. Hussie, Secretary, 2407 Cuming Street, Omaha, Nebraska.

Sheet Metal Contractors' Association of Indiana, Indianapolis, Indiana, May 15, 1922. Ralph R. Reeder, Secretary, 312 East Sixteenth Street, Indianapolis, Indiana.

National Association of Sheet Metal Contractors' Convention and Exhibition in the Cadle Auditorium, Indianapolis, Indiana, May 16, 17, 18, and 19, 1922. Edwin L. Seabrook, Secretary, 608 Chestnut Street, Philadelphia, Pennsylvania.

Hardware Association of the Carolinas, Winston-Salem, North Carolina, May 17, 18, 19 and 20, 1922. T. W. Dixon, Secretary-Treasurer, Charlotte, North Carolina.

Mississippi Retail Hardware and Implement Association Convention and Exhibit, Fair Grounds, Jackson, Mississippi, May 24, 25 and 26, 1922. Headquarters, Heidelberg Hotel. E. R. Gross, Secretary-Treasurer, Agricultural College, Mississippi.

American Society of Heating and Ventilating Engineers, Semi-Annual Meeting, June 5, 6, and 7, 1922, Hotel Iroquois, Buffalo, New York, and June 8, 9, and 10, 1922, Hotel Wolverine, Detroit, Michigan. C. W. Obert, Secretary, 29 West Thirty-ninth Street, New York City.

Metal Branch National Hardware Association, Hotel Statler, Cleveland, Ohio, June 9 and 10, 1922. W. H. Donlevy, Chairman, 1012-14 Cherry Street, Philadelphia, Pennsylvania.

Associated Advertising Clubs of the World, Milwaukee, Wisconsin, June 11, 12, 13, 14 and 15, 1922. Carl Hunt, Secretary, 110 West 40th Street, New York City.

National Retail Hardware Association, Chicago, Illinois, June 19, 20, 21, 22 and 23, 1922. Headquarters, Hotel Sherman. Herbert P. Sheets, Secretary-Treasurer, Argos, Indiana.

Master Sheet Metal Contractors' Association of Ohio, Zanesville, Ohio, July 18 and 19, 1922. W. J. Kaiser, Secretary, 123 East Chestnut Street, Columbus, Ohio.

Sheet Metal Contractors' Association of Pennsylvania, Hotel Lawrence, Erie, Pennsylvania, July 27 and 28, 1922. W. F. Angermeyer, secretary, 714 Homewood Avenue, Pittsburgh, Pennsylvania.

Study and Interpretation of Advertisements.

You Can Make Your Advertisements More Gainful by Avoiding the Faults and Profiting by the Good Qualities of Others.

Combining price, quality, and service in its reasoning, the advertisement of J. H. Goldcamp Company, reproduced herewith from the

SAMSON CULTIVATORS



Prices on Samson Cultivators are back at the old price basis. At these bargain prices you will be losing money if you try to cultivate with worn out equipment this season. These famous cultivators are ready to give you the same high grade service as they have for others during the past sixty years. Look at these bargain prices:

Walking Cultivator 6 Shovel B. P.	\$25.00
Balance Gang Cultivator 6 Shovel B. P.	\$35
Pivot Axle Cultivator 6 Shovel B. P.	\$35
Floating Arch Seat Guide Cultivator 6 Shovel B. P.	\$35
Two-Row Cultivator 12 Shovel B. P.	\$80

The Samson Tractor Co. is a Division of General Motors Corporation

Cultivate with the new Samson Implements this year for best results.

J. H. GOLDCAMP CO.

Lancaster Gazette, Lancaster, Ohio, possesses the chief virtues of effective salesmanship.

The illustration of the cultivator is clean-cut and helpful.

It shows all the main details of construction so distinctly that there is no difficulty in visualizing the complete machine.

The first paragraph of the text indicates tersely and convincingly the advantage of purchasing the Samson cultivator at a bargain price.

The second paragraph calls attention to service and quality backed by an experience of sixty years.

The argument of the advertisement closes with a straightforward itemized statement of prices.

The trade-mark of the cultivator featured in this advertisement is

made authoritative by the information that "The Samson Cultivator Company is a division of the General Motors Corporation."

From a point of view of illustration and type, as well as from the angle of persuasive wording, this advertisement deserves to be classified among the best.

* * *


A distinct example of timeliness in advertising is furnished by the advertisement of King Hardware Company, reproduced herewith from the *Atlanta Journal*, Atlanta, Georgia.

Baseball is the dominant sport in America.

When the baseball season opens the cry of "Batter up" is, indeed, a

Any of our
Items Can
Satisfy You
King Hardware Co.
Write Me
Where To
Atlanta

"Batter Up"



How welcome that cry is to every boy, young and old! But to insure your greatest enjoyment from the game, you should come here for your supplies. High quality—low prices prevail in our sporting goods department.

Baseball Gloves 75c to \$8.00								
<table border="0" style="width: 100%;"> <tr> <td>Baseballs 15c to \$2.00</td> <td>Baseball Bats 25c to \$2.50</td> </tr> <tr> <td>Baseball Mitts \$1.00 to \$9.00</td> <td>Body Protectors \$3.00 to \$8.00</td> </tr> <tr> <td>Baseball Uniforms \$5.00 to \$15.00</td> <td>Catchers' Mitts \$1.00 to \$15.00</td> </tr> <tr> <td>Baseball Masks \$1.50 to \$7.00</td> <td>Baseball Shoes \$5.00 to \$8.00</td> </tr> </table>	Baseballs 15c to \$2.00	Baseball Bats 25c to \$2.50	Baseball Mitts \$1.00 to \$9.00	Body Protectors \$3.00 to \$8.00	Baseball Uniforms \$5.00 to \$15.00	Catchers' Mitts \$1.00 to \$15.00	Baseball Masks \$1.50 to \$7.00	Baseball Shoes \$5.00 to \$8.00
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King Hardware Co.

431 Marietta 53 Peachtree 252 Puters
 64 Peachtree 155 Whitehall 122 Decatur
 14 Gordon

welcome cry to every boy, young and old, as King Hardware Company phrases it.

This advertisement is exceptionally well illustrated.

It has the indispensable virtue of clear price quotations.

A sufficient variety of baseball supplies is listed in the oblong boxes in the lower half of the advertisement.

The statement of the range of prices with each group of baseball goods gives a clear idea to the prospective customer and enables him to come to the store with a definite notion of what he will have to pay for the things he wants.

* * *

As a general announcement of a complete stock of supplies for the builder, the advertisement of the W. W. Thomas Hardware Com-

Everything for the Builder

We feature the Yale line. It costs a little more but it's worth it.

Sash and Doors, Screen Wire, Paints, Roofing, Nails, Putty, also Builders Tools.

W. W. Thomas Hardware Company

"Hardware That Stands Hard Wear"

Franklin St. Phone 4487.

pany, reproduced herewith from the *Tampa Times*, Tampa, Florida, serves a useful purpose.

By mentioning a nationally known brand of locks the advertisement acquires the quality of inspiring confidence.

However, unless this copy is followed by specific advertisements mentioning particular articles of builders hardware and prices, it lacks effectiveness.

Always it is needful to strengthen such general announcements by advertisements to focus the buying desire of the prospective customer upon distinct commodities which are presented with full details of price and usefulness.

* * *

Whatever else happens, never let up on making a drive for more business.

Facts of Warm Air Heating and Ventilating.

Reports of Progress in Warm Air Heater Research Work. Ventilating Factories, Theatres and Other Buildings.

Excelsior Furnace Booster Is Designed to Quicken Air Flow.

So designed as to produce maximum circulation of warm air, the new blower, manufactured by The Excelsior Steel Furnace Company, Chicago, Illinois, and known as the Excelsior Furnace Booster, is made to fit any warm air furnace and it fills every warm air pipe of the heating system. This Booster outfit has two suction collars and one booster shoe collar with a canvas intersection.

It was devised, according to the statement of the manufacturers, to overcome all circulation difficulties and to deliver 100 per cent satisfaction on every furnace job.

With a motor using alternating current, 110 volts 60 cycles, the Excelsior Furnace Booster picks up a portion of the cold air in each cold air return pipe, carries it through the blower and discharges this air

through the Booster pan into the casing at a velocity many times faster than the normal flow of the cold air.

The nozzle of the Booster discharges the air from the blower directly against the hottest part of the furnace, thereby picking up an increased number of heat units.

By this process, it is stated, the life of furnace parts which are usually destroyed from overheating, are prolonged.

The Engineering Department of the Excelsior Steel Furnace Company is ready to make layouts and estimates for the installation of the Excelsior Furnace Booster.

All the dealer needs to do is to send to the Engineering Department of the Excelsior Steel Furnace Company, Chicago, Illinois, sketches of jobs for which he wants to recommend Boosters, and the Engineering Department will give him the benefit of this service.

Hardware Company operates may be expressed in this manner:

"Our duty to our customer is to offer him only meritorious goods—merchandise which is peculiarly adapted to his individual needs—and then to render him such prompt and satisfactory service on the goods sold that they shall always do that which is claimed for them."

This principle goes far in accounting for the fact that the Company holds its customers through good times and hard, and that in 1921 its sales, in dollars and cents, were close up to the record year of 1920, while in number of items sold, the 1921 figures showed a considerable increase.

Mr. Chandler states that they added the Majestic Duplex heating system about five years ago, and in 1920 sold fifty-seven furnace jobs, fifty-one of which were equipped with Majestic Duplex registers, and in 1921 they sold forty-five installations of the same system.

"At first," Mr. Chandler said, "we were somewhat skeptical as to the ability of the Majestic to do all that was claimed for it in the average residence, but after the most severe tests, under all conditions, we have found that it fills the bill admirably.

"We have now been pushing the Majestic to the best of our ability for nearly five years, and we have yet to hear any complaint, which we can not adjust satisfactorily to the customer.

"And that is really the testing point—if the customer is fully satisfied and feels that he has received full value for his money, you can always be sure that when you refer any prospect to him, he will boost for you.

"And what is even better—the customer will be so pleased that he will call attention to the article he has bought and will thus create good

Where Service Counts, We Win Says Chandler Hardware Company.

This Applies Especially in Sales of Warm Air Heating Systems and Other Large Items.

A NUMBER of articles have been published by AMERICAN ARTISAN AND HARDWARE RECORD about the progressive methods employed by the Chandler Hardware Company, Sylvania, Ohio. The one to follow has to do to a large extent with the development of their business on warm air heating systems.

Roy A. Chandler, son of the founder of the Company and Secretary-Treasurer of the corporation, has charge of the sales and advertising departments. He is a college man, but that does not prevent him from knowing something about hardware, nor does it stop him from finding out what it is that

makes a warm air furnace operate satisfactorily. Incidentally, Roy is not afraid of getting his hands soiled by taking his side of a fire pot in order to put it on the truck. He knows that certain kinds of soap will make the dirt disappear.

The Chandler Hardware Company specializes on and features trade-marked and advertised lines and this year they will spend most of their advertising appropriation in pushing fifteen such lines, one of which is the Majestic Duplex heating system, manufactured by the Majestic Company, Huntington, Indiana.

One of the chief principles of the method under which the Chandler

prospects for you, which is half of the battle.

"We have five outside salesmen—they spend all their time calling on people in their homes and that

pects, in a sense, and frequently we do not have to figure against anybody else, just because the prospect is in a favorable state of mind through the recommendation of

Gives Advice on Planning the Warm Air Heater Job.

Very much to the point is the advice given by the Monthly Bulletin of the Roofing, Metal & Heating Engineers of Philadelphia, Pennsylvania, on "planning the job," as follows:

In looking about for various means to reduce the cost of our work, some of the trade have seriously considered whether it was not possible that a saving might be made by a more careful preliminary planning of each piece of work.

The majority of the trade have been taught to take account of the material required for each job, and collect it into one load to the job.

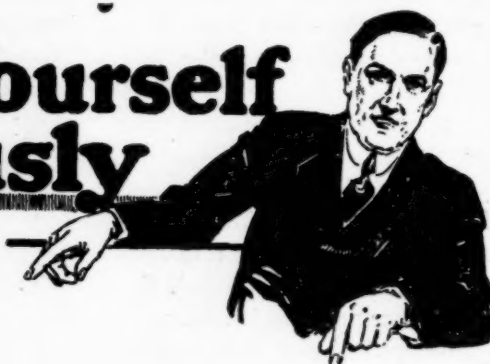
But we forget this sometime and just guess, or overguess, which means either a shortage or too much material on one job and not enough on another, and then there is added expense for cartage and possibly a delay.

Then again, in the case of a warm air heating contract, many of us are in too big of a hurry to start the job, or when estimating we forget that we are going to try very hard to get the job, and it would be a decided help if accurate measurements were taken at the time the estimate was given for future reference.

Hardly any two men estimate a job alike. Some have a more complete knowledge of certain parts of the work than others, yet if accurate measurements of areas, length of piping, position of registers, exact location of furnace, length and breadth of gutter and length of conductor and all else that enters into the job were taken at the time of estimating, a short written explanation to the men helps them a great deal when the job is awarded.

We are told that reductions must be made in our charges, and one of the sure ways in which this can be done is in "speeding up" or shortening the time on the work; and if by careful examination the first time the job is visited we can arrange the work to shorten the time, and thereby the expense, we will find this a help.

Ask Yourself Seriously



Does your present heating method really warm your entire home in extremely cold weather?

Does it make the air too dry - and fail to circulate the warmth in the healthful way?

Does it lower the vitality of your family because of uneven or "spotty" heating?

Does it fail to heat certain rooms?

Does it burn too much fuel?

Does it waste fuel by heating your cellar needlessly?

Does it spoil your cellar as a safe place to store your vegetables or fruits?

Does it take too long to get your fire started?

Must you force your fire on cold days?

Does your fire go out when you try to keep it low in Spring and Fall?

Is it hard to control and does it overheat the living rooms after it does get started?

Has wasted heat and fuel been too expensive?

Will you be wasting more money by using your present method longer?

Does it put dust - gas - or smoke into your living rooms?

Majestic Duplex Heating System



The MAJESTIC Duplex Heating System consists of a Duplex Register (A), and a special "Duplex Floor" (B). (A) MAJESTIC Duplex Register. (B) Warm air heating register. (C) Cold air entering register. (D) MAJESTIC Duplex "Floor".



Let us figure your requirements
and
show you results

HANDLER SYLVANIA OHIO
"WHERE SERVICE HARDWARE COUNTS, WE WIN" COMPANY

Newspaper Advertisement Published by R. A. Chandler Hardware Company, Sylvania, Ohio, occupying a space of three columns wide and eleven inches deep.

is one of the reasons why we are selling more warm air heating plants than any other concern in our territory. We do not wait until somebody comes in and tells us that he wants to buy a warm air furnace. We make our own pros-

some house owner who is using one of our Majestics."

A satisfied customer is the best advertisement you can have, but don't overlook the satisfied employe.

Moncrief Furnaces Are Exhibited at Cleveland Building Show.

Among the features which drew the attention of the visitors to the recent American Building Exposition in Cleveland, Ohio, was an uncommonly clever exhibit of Moncrief Furnaces, by the manufacturers, the Henry Furnace and Foundry Company, Cleveland, Ohio.

This exhibit had for its purpose the building up of good will for

ance and construction of these warm air heaters.

Veteran Foundry and Furnace Man Passes Away.

After many years of usefulness and service to the trade, P. H. MaGirl, owner of the P. H. MaGirl Foundry and Furnace Works, Bloomington, Illinois, passed away recently at the Kelso Sanitarium, in that city.



Exhibit of Moncrief Furnaces at the Cleveland, Ohio, Building Show.

the benefit of the Moncrief dealers in Cleveland who made use of the booth to meet old friends and new customers.

The exhibit is in line with the policy of the Henry Furnace and Foundry Company of closer dealer cooperation and guaranteeing installations to home owners.

One of the practical methods for making this policy a success, takes form in enlarging of the service of the Henry Furnace and Foundry Company to its dealers and supporting them with an extensive advertising campaign.

The accompanying photograph of the Moncrief exhibit shows quite clearly the method of demonstration by which the prospective customers and visitors were enabled to get a clear idea of the appear-

He was born April 14, 1850, and when but four years of age, went to Bloomington with his parents.

He received his education in Bloomington schools and learned the molders' trade, being employed in various foundries of that city.

In 1892 he engaged in foundry business, forming a partnership known as MaGirl and Diedrich. He bought out his partner's interest in 1896 and thereafter conducted the business under the firm name of the P. H. MaGirl Foundry and Furnace Works.

Under his management the business progressed rapidly and gained a wide reputation for the honesty of its product.

He is survived by three children, James D. MaGirl, Mrs. William

Johnson, and Mrs. Frank Dalton, of Bloomington.

Corrects Some Wrong Ideas About Asbestos.

A recent issue of *Asbestos*, the Journal devoted to the various phases of this material, corrects some wrong ideas regarding its heat-resisting qualities.

Asbestos does have great heat resistive powers, but asbestos is in fact a good conductor of heat.

Every one has noted the use of the asbestos disc under pots and kettles and over gas jet in order to prevent blacking the kettles and also to effect a better distribution on the heat around the bottom of the kettle.

The heat in this case is conducted from the gas flame to the bottom of the kettle through the asbestos plate.

Asbestos is used for pipe coverings for hot steam pipes, not for any non-conducting of heat value, but because the heat conservation is brought about by artificially created dead air cells which are interlocked as minutely as possible in the asbestos.

These cells resist heat radiation and prevent loss of heat.

It is not the asbestos itself which performs this service.

Provide for Advertising in Your Overhead Costs.

Everything in the history of good advertising goes to prove that it is not an expense to business, to be indulged in if "business warrants."

And if advertising is not an expense, then there is no reason for determining its volume by earnings in the past.

If a business is in process of being built up, advertising should be planned and paid for out of capital investment.

If a business is a "going concern," financially, then advertising should become one of the facilities provided for in overhead, and dealt with as labor, rent, light, power, and the other items of overhead, are dealt with.

IN the April 8th issue of AMERICAN ARTISAN AND HARDWARE RECORD there appeared a double page advertisement of the Rudy Furnace Company, Dowagiac, Michigan, in which the announcement was made that for a limited time Rudy Furnaces would be sold at a considerable reduction.

In view of the fact that representatives of two other papers, claiming to cover the warm air furnace industry, have stated that the same advertisement, or a similar one, was offered to them by the Rudy Furnace Company and that they had refused to run the advertisement, the letter on the opposite page will be of interest.



RUDY DIVING FLUE

The Rudy Furnace Company

Manufacturers of

**PIPE AND PIPELESS
FURNACES**



Dowagiac, Michigan

May
Tenth
Nineteen Twenty-Two

WAREHOUSES
PHILADELPHIA
PORTLAND, ORE.
DENVER
CHICAGO
CANTON, O.
KANSAS CITY
SALT LAKE CITY
ST. PAUL
ATLANTA
SPOKANE
OMAHA

ADDRESS ALL CORRESPONDENCE TO
DOWAGIAC, MICHIGAN

OFFICERS
A. E. RUDOLPH
PRESIDENT - GEN. MGR.
CHARLES J. BIEK
VICE PRES. - SALES MGR.
EUGENE GILBERT
TREASURER
ARTHUR F. FRAZEE
SECTY. MGR. OF ADV.
EDWIN F. SNYDER
FACTORY MANAGER

American Artisan and Hardware Record,
630 South Michigan Blvd.,
Chicago, Illinois

Attention: Miss E. Cohn, Manager

Dear Miss Cohn:

It has come to our notice that representatives of certain trade papers have endeavored to make capital for themselves by claiming that they had refused to accept the same advertisement as appeared in your issue of April 8th, or a similar one.

For your information, as well as for others interested, we are pleased to state that we have not had a refusal from any trade paper to run this copy or any other advertisement.

We selected AMERICAN ARTISAN AND HARDWARE RECORD to carry our message in the manner we wanted it carried because we have found that your publication reaches the greater proportion, by far, of the progressive furnace dealer-installers, and we certainly have no regrets as to the results. You fairly swamped us with inquiries and specific orders from all sections of the United States.

Very truly yours,

Arthur F. Frazee

Secretary & Adv. Mgr.
RUDY FURNACE COMPANY

A. F. Frazee
C C R

Practical Helps and Patterns for the Tinsmith.

Aids to the Improvement of Craftsmanship and Business.
News from Various Branches of the Sheet Metal Trade.

PATTERNS FOR AUTOMOBILE FENDER.

By O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri. Written especially for American Artisan and Hardware Record.

Automobile sheet metal is just giving another slam too much to

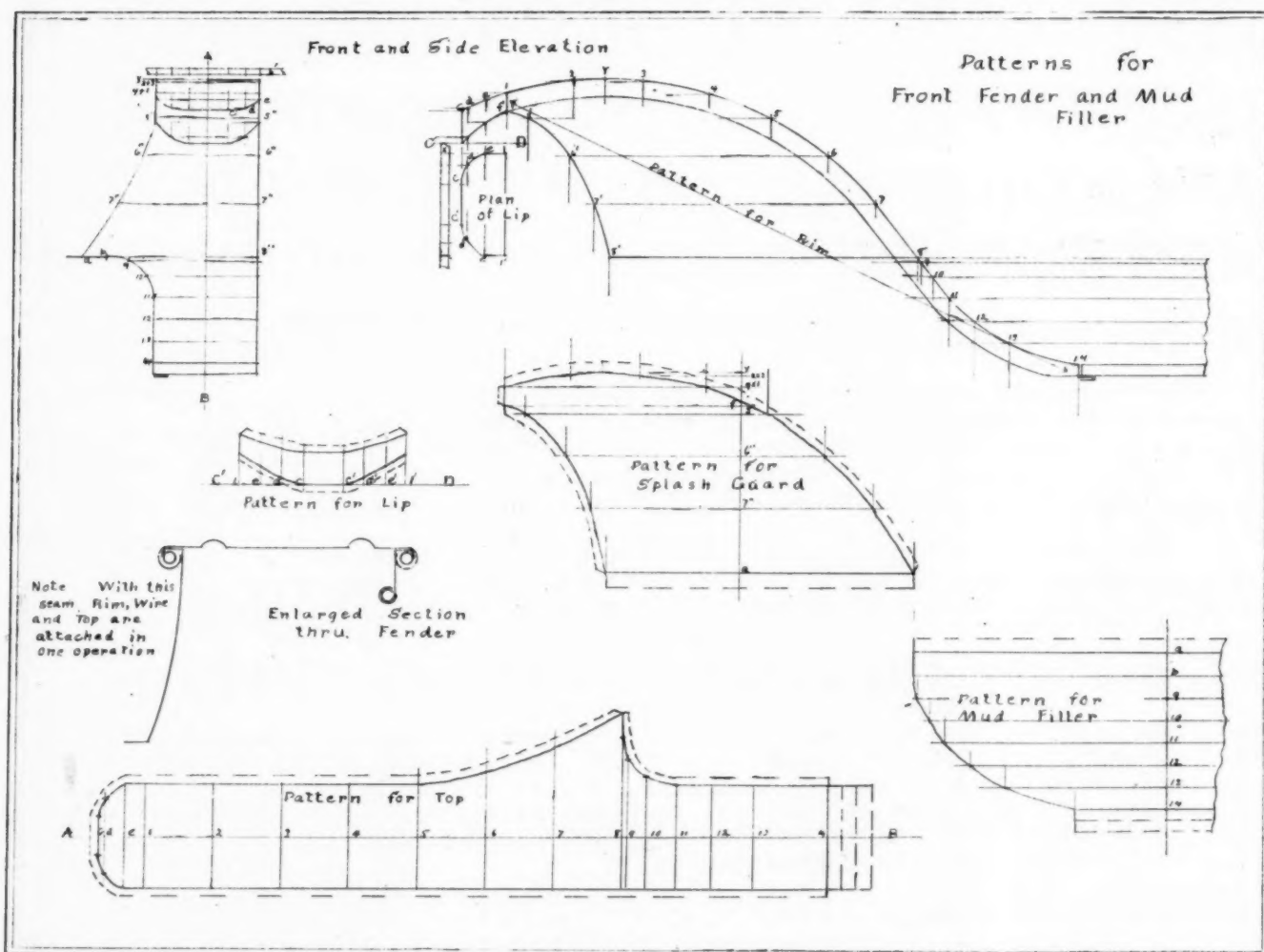
In this drawing we have a fender that has a splash guard, a mud filler, and a visor or lip attached.

From the front elevation, we see the general outline of fender, and the side view shows us the curvature of the top and the shape of the splash guard, while the front elevation shows the mud filler section.

from the center line A-B of front elevation, pick the widths and set them off on this line in pattern.

This gives the widths and curvature as shown.

This process is also continued for the mud filler guard by dividing the section in front elevation in any number of equal parts and



Patterns for Automobile Fender.

the other sheet metal work with which we are so familiar.

There are a great many workmen who let some of the beautiful curves and high polish of the modern sheet steel buggy mystify them.

In reality, they are very simple and after a period of study a person is surprised at the extremely few designs that require complicated laying out.

Now the top of fender is just merely a flat strip of metal with a bead run around.

Divide the top line of side elevation as 1-8 in any number of equal parts and project them into the front elevation.

Then pick this girth from side elevation and set it off on a line A-B.

Draw stretchout lines and then

projecting those lines into side elevation.

Then pick the spaces as 8-14 and set them off in pattern from 8-14 on line A-B. After this pick the widths from front elevation and set them in pattern, which permits drawing the outline for pattern as shown.

To set out the splash guard, pick the girth from front elevation as

a-7"-6"-5", etc., and set off on a line as a-y below side elevation as shown.

Draw stretchout lines through these points and then from each point in elevation drop lines until they cross those in stretchout of similar number.

This enables tracing the outline for the miters of pattern.

The mud filler is set out in the same way by picking the girth from the section as a-b-9-10-11, etc., of front elevation and set off below side elevation as a-14.

Draw stretchout lines through these points and then from each

point in elevation as 8-9-10, etc., drop lines to cross those of stretchout of similar number. Sketch a line through these intersections the pattern is finished.

To set out the lip the parallel line method can be used by placing a plan of the lip below side elevation and dividing the curves in equal spaces and running up the points into the elevation.

From each of these points in elevation project lines over into front elevation.

Then, by means of a paper strip x, pick the spread of spaces and set it as in paper strip x' and drop

lines into those that were projected from side elevation. This enables drawing the miter lines as shown.

To set out the pattern pick the girth from plan of lip and set it on a line C'-D and square up lines as shown.

Then pick the widths from front elevation and you have the pattern finished.

The balance of the rim of fender can be taken direct from the side elevation only allowing edges for enclosing a wire or just rolling it as desired.

Edges must be allowed on all patterns.

Repairing of Tubular Fin Cores Requires the Making of a Space in Which to Operate.

No Soldering Is Possible While the Fin Plate Remains too Close to Headsheet for Torch Flame to Melt the Solder.

Written Especially for AMERICAN ARTISAN AND HARDWARE RECORD by
E. E. Zideck, New York City

TWENTY-EIGHTH ARTICLE.

BREAKS and leaks in a tubular fin core are most frequent at the headsheets. These are soldered up by setting the radiator in an upright position, with the leaky headsheets down, and just high enough for the repairer to look through between the headsheets to be soldered and the adjoining fin plate.

This fin plate is bent toward the other fins and by doing this, the repairer has space enough for observing the effect of the flame upon the headsheets and for free manipulation of wire-solder and acid brush upon it and around the tube joints.

By applying the torch flame upon the fins nearest to the headsheets they get loosened in their hold to the tubes and it is possible to move them away from the headsheets, far enough to leave a space between the headsheets and the next fin plate of at least three-eighths of an inch.

If the tubes leaking are located on the outside, the fins do not need to be bent out more than can be done without the melting of them away from the tubes.

But if the leaky tubes are inside the core, a clear space of at least the above dimension must be created in order to have free play of melting solder around the tubes.

It is a fact—and many a repairer has paid dearly in time and hard work for the experience—that no soldering is possible as long as the fin plate remains too close to the headsheets for the torch flame to melt the solder.

In other words, if the fin plate is less than three-eighths of an inch apart from the headsheets, there is no room for the flame to work upon the headsheets and its heat will be absorbed by the fin plate, and burn it eventually, without, however, melting the solder piled in between the two.

Suppose the repairer has in his hands a fin core leaking in one or more of the *inside* tubes where they enter the headsheet.

If he attempts to solder up the leaks without bending down or moving the fin plate next to the headsheets, but piles in solder and tries to melt it so it flows in between and around the tube joints,

he will spend hours and days without succeeding in getting the leaks stopped.

But if he melts the fin upon the tubes and moves the fin away from the headsheets slightly, creating a *space* where he wants to solder, he will be able to watch the process with his eye.

First of all, applying acid and flame, he will see the headsheets and the tubes that leak become white-tinned.

Next, by pushing in the wire-solder, it will immediately melt and distribute itself over the headsheets made hot; and, finally, by applying more acid around the tube-joints and holding solder to them there will be rings of solder molten around them and the leaks stopped permanently.

Without moving the fin plate as above told, the repairer will not solder up a single tube leak no matter how long he works on it.

And if he moves the fin plate, creating a space clear through between the headsheets and the fin plate so the flame comes out on the other side of the core if he applies it in the front where he is working, and proceeds heating up the headsheets first and use plenty of fluid and less solder, he will solder up *every* tube joint in the whole headsheet within *one hour* after he has moved the fin plate out of his way; and the job will show no more leaks when he puts it to test.

The following directions, if ob-

served, will enable anybody who knows how to handle the torch, to solder up leaks in the headsheets without guessing at it:

1—Lay the radiator face down, with the tank and at least two inches of fins protruding over the bench, so the torch flame has free passage through the core.

2—Apply fluid by brush or can upon the entire length of the fin or fins to be moved.

3—Apply flame upon the entire length of the fin, so it reaches through the core, and move rapidly over the entire length of the fin, until the tubes within the fin show the white of solder.

4—Have a screwdriver or a narrow flat piece of steel in your right hand and the torch in your left hand. Insert the tool between the headsheets and the fin while you continue moving the flame, and move the melted-off fin plate away from the tank slowly, so it is moved at each tube equally, until there is at least $\frac{3}{8}$ inch space between the tank and the fin plate.

5—Turn the radiator, face up, and proceed heating up the fin and moving it from this side, until there is the desired space in front, the back, and inside the core.

6—If the leaky tubes are either in the front or the back row, it is not necessary to move the entire fin; the bending of it will do. But if the leaky tubes are located in either of the inside rows, it is more important to have the desired space *inside* than it is to have it on either the front or the back of the core.

7—With the fin moved away from the headsheets so it is at least three-eighths of an inch away from it *everywhere*, place the radiator in an upright position, the headsheets to be on a level with your eyes.

8—Use a good size brush or a can (similar to an oil can) to apply the fluid; apply it richly all over the portion of the headsheets to be soldered.

9—Regulate the torch flame to a long, sharp tongue of blue and red (no yellow) and hold it on to the headsheets so that the flame reaches through the core, heating up the

metal around the tube-joints. Move it slowly at first, waiting for the headsheets to show the white of melting solder; and when the entire portion is heated up to that point, apply more fluid and insert wire-solder from both sides of the tubes, moving the flame on to the next row as soon as the solder commences melting.

9—Turn the radiator and put more solder onto the tubes from the side you are working on now.

10—Do not let anything interrupt you while you are doing this work, because you have to do the soldering while the headsheets is heated up and if you are slow about it, it will cool off and solder will pile up instead of melting around the tubes.

10—Don't pile in more solder than one thickness of the wire upon each side of the tubes. Melt it enough to flow around the tubes, but not to drop inside the tank.

11—Having inserted one thickness of the wire solder upon each side of the row of tubes, apply more acid and while the metal is hot, touch each of the tube joints with the solder. This will melt it into a ring around the tube but not enough to make it flow away from it.

12—After putting the radiator to test and seeing no more leaks, the radiator is laid flat again, the flame is applied on the fin and moved rapidly to heat up the entire length of it. No attempt should be made to melt the fin holds on the *inside* tubes. The melting of the holds upon the tubes in the two outside rows, one at a time, will enable you to put the fin back in its previous position and do away with any marks of bending and repair.

(To Be Continued.)

Ohio Auxiliary Starts a Drive for Membership.

An intensive drive for membership in the contractors' organization has been started by the Jobbers' and Salesmen's Auxiliary to the Sheet Metal Contractors' Association of Ohio.

Fred F. Foster of Columbus, Ohio, secretary of the Auxiliary,

has sent the following to all the members of the Auxiliary urging them to take an active part in the work:

"Never in the history of the sheet metal trade has there been greater need for solidity of organization than exists at present.

"To a member of the Jobber's and Salesman's Auxiliary, there is no need to place further emphasis on the preceding statement.

"Neither is there any call for us to elaborate to you upon the advantages which come to the individual, corporation or firm through membership in the Sheet Metal Contractors' Association of this state.

"The fact of your membership in the Auxiliary means that you are thoroughly 'sold' on the merits of the above organization and alive to the excellent work which it is accomplishing.

"You are in a position where direct contact with all of the Sheet Metal Contractors of your territory is part of your daily routine. Therefore, you are aware that there are a few contractors not yet enrolled under the progressive banner of our organization.

"A concerted drive affecting every individual connected with the trade is now under way, urging them to affiliate themselves with the Association.

"We now call upon you to divert some of your selling ability to the cause of selling the Association to those who are still outside. We desire ever member of the Auxiliary to devote a portion of his time when calling on any sheet metal man who is a non-member, to convincing him that it is to his advantage to sign up immediately. As preparation toward making the coming convention the greatest ever, let us make Ohio one hundred per cent Association.

"You know the prospects in your territory. The same reasons which sold you on the Association will be the ones which will convince others.

"We enclose a supply of application blanks and a roster. Let us double this list of names within the next two weeks."

New Jersey Zinc Company Sends Exhibit to National Convention.

For the first time at a Sheet Metal Contractors' national convention a complete display of Zinc leaders, gutters and fittings will be staged.

The New Jersey Zinc Company is sending to Indianapolis for the exposition the exhibit which proved to be one of the principal attractions at the recent Own-Your-Home Exposition in New York City.

Zinc leaders, eaves-troughs, mitres, elbows and fittings, made from Horse Head Zinc will be shown.

These articles, which are the exact specimens of spouting made from zinc that now adorn hundreds of homes throughout the East, should prove to be of exceptional

The accompanying picture shows the New Jersey Zinc Company's recent display in New York which will be among those at Indianapolis. This exhibit induced many home-builders to specify zinc leaders, gutters, valleys and flashings on their homes.

Zinc can not rust. It does not stain surfaces and, because of its durability, has acquired the slogan, "it lasts a lifetime."

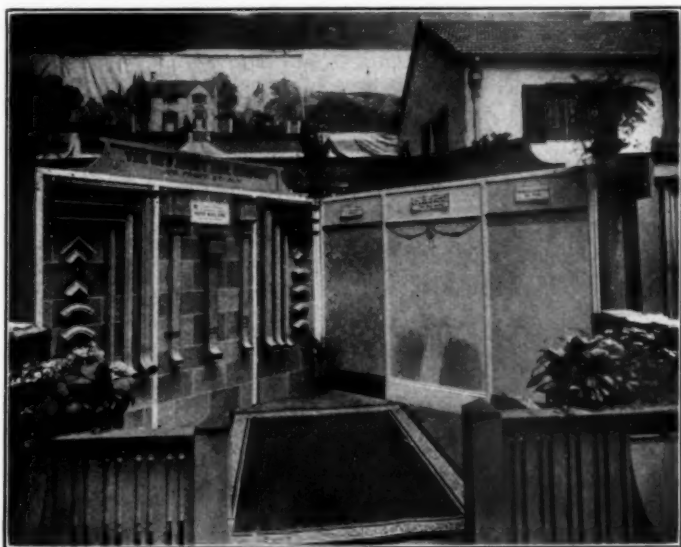
Bethlehem Buys Lackawanna Steel Company.

The Bethlehem Steel Corporation will acquire by purchase the properties of the Lackawanna Steel Company, thus uniting under a single management two of the largest of the so-called independent pro-

been taken by the officials of both companies.

The Lackawanna acquisition gives the Bethlehem additional capacity for commercial bars. It also gives the Bethlehem an opportunity to extend its operations as the Lackawanna will supply the New England and lake states with steel rails, the product in which it specializes, while the Bethlehem can continue to supply the southern markets. It also gives Bethlehem a market for structural plates in territory which heretofore has not been reached.

The combined companies will have an ingot capacity of about 5,000,000 tons annually, of which 1,800,000 tons are credited to Lackawanna and 3,200,000 tons to Bethlehem. This compares with a capacity of about 22,000,000 tons for the United States Steel Corporation. It is also less than the capacity of the six company merger, which would be in the neighborhood of 8,200,000 tons with Lackawanna excluded.



The display of leader pipes, eaves-troughs, elbows, fittings, etc., made from Horse Head Zinc which The New Jersey Zinc Company conducted at the "Own-Your-Home" Exposition. At upper right may be seen corner of "The Beautiful Home Convenient," also equipped with Zinc Spouting.

interest to metal workers. This fact is particularly true because of the success so many tinsmiths have had in featuring them.

In these days when the resourceful dealer prods his business by featuring something new, the advent of zinc spouting is extremely timely. The qualities of zinc spouting, such as its low cost, durability, attractive color, economy and self-protecting characteristic, render it a material to be recommended for serious consideration by metal workers.

ducers of iron and steel in the United States.

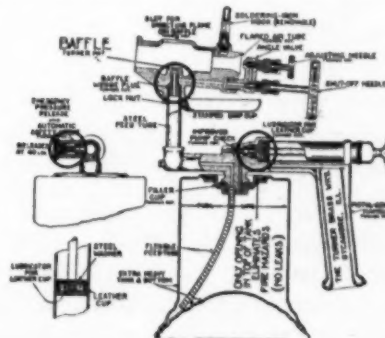
Formal announcement was made late Thursday by Eugene G. Grace in behalf of the Bethlehem Steel Corporation and Moses Taylor in behalf of the Lackawanna Steel Company.

Directors of both the Bethlehem Steel Corporation and the Lackawanna Steel Company will hold meetings next Tuesday to settle the final details. It is said all matters have been agreed upon, but could not be made public until action had

Turner Brass Works Brings Out New Line of Torches.

A new line of torches for sheet metal workers has been placed on the market by the Turner Brass Works, Sycamore, Illinois, under the name of Master torches. The accompanying illustration shows a sectional view.

All of the essential features are covered by Turner patents, such as the safety valve which is set at



Sectional View of Master Torch.

forty pounds, thus making it impossible to burst the tank by applying too much pressure.

Another attractive point of the Master torches is the pistol grip

handle which is large enough for any size hand.

The patented baffle in the burner is said to make it possible to generate 400 degrees more heat on lower fuel combustion without clogging the burner.

Full particulars about this new line may be secured by writing to the company.

Zideck's Handbook of Radiator Repairing Is Ready.

With a brief introduction pointing out the great possibilities for profit in skilled radiator repairing, "Zideck's Radiator Repairing Handbook" explains in clear and simple language the construction and variety of types of automobile radiators and their method of operation.

In the first part, this handbook explains the tubular, fin and cellular cores of automobile radiators and tells how they are made.

The structural weaknesses as well as advantages of the different types of cores are briefly and plainly described.

Copies of the handbook can be purchased from the author, E. E. Zideck, 300 East 91st Street, New York City.

Copper Roofing Entails No Costs for Upkeep.

(Written especially for *American Artisan and Hardware Record* by Joseph N. McDonald, New York City.)

When the chimes of old Christ Church pealed forth in echo to the message of the Liberty Bell on that sacred day in July, 1776, the copper roof of this beautiful edifice had already seen three decades of service, having been applied in 1749.

George and Martha Washington, the Marquise deLafayette, Benjamin Franklin, Betsy Ross, Henry Clay and many others whose names are equally dear to the heart of America, were sheltered in their worship under this same old copper roof—a tribute to the everlasting qualities of copper.

Copper roofs at first cost are naturally higher than wooden or non-

metallic roofs, but the difference in price is trifling in comparison with the difference in service.

There are no "upkeep" costs with copper roofings—not one cent to be spent for painting, repairing or replacing.

Once laid, you can forget a copper roof forever. Trinity Church in New York was built seventy-six years ago, the owners have not spent five dollars in repairs during this period, and the roof is as good today as it was in 1847. Pure copper is indestructible.

No matter how hard the wind blows the rain against a copper roof it will not leak.

In a recent test a nozzle with a stream of forty-five pounds pressure was forced against the roofing, but the water could find no way through and there was no sign of a leak.

The tropic suns can not harm a copper roof. It will not warp, split or curl.

Below-zero weather leaves it unaffected and a snow finds copper so difficult to stick to that after a snow storm such a roof is clear long before a wooden roof.

Copper is fireproof and lightning-proof. It neither rusts nor deteriorates and time has no effect upon it.

Copper itself is a beautiful metal. If exposed to the weather it acquires a beautiful green coat and then, of course, it can be bought in all colors, such as old greens, dull reds, rich russet browns and peacock blue for residential uses.

We are in a new age of roofing. The non-metallic roof must give way to the metal roof with its durable qualities.

The buyer of roofing desires, in fact demands, certain properties in roofing materials, as one buyer expressed it the other day.

A roof should be light but strong, everlasting, proof against fire and lightning, sun, snow, or torrential rains.

It should not rust; neither should it cost a penny after it is installed.

A roof should be beautiful with a beauty that endures—a beauty

that harmonizes perfectly with the edifice beneath it and the environment.

Anaconda Copper Roofings will be on exhibit in Sections 86 and 87, May 16th to 19th, at the National Sheet Metal Exposition, Cadle Auditorium, Indianapolis, Indiana.

Illinois Zinc Company Opens Large Sales Office in Chicago.

The sales organization of the Illinois Zinc Company has been enlarged and a well manned sales office has been established at 332 South Michigan Avenue, Chicago, in addition to those maintained at 280 Broadway, New York City, and 1331 Filbert Street, Philadelphia.

E. S. Gellatly, General Sales Manager, will for the present divide his time between the Chicago office and the Eastern offices, spending the early part of each month in Chicago.

The steady increase in sales of zinc shingles which the Company is showing has made it necessary to organize the Chicago sales office, where a staff of construction experts will be on hand to render assistance to sheet metal contractors, architects and others who may ask advice on the use of zinc.

Says He Derives Many Benefits from AMERICAN ARTISAN.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

Thirty years ago, May 1, 1892, when starting to learn the sheet metal trade, I first subscribed for your paper; and I derive many benefits from every week's issue of it.

Sincerely yours,

W. G. TAYLOR.

—, Florida, May 8, 1922.

Defines Monel Metal.

Briefly described, Monel metal is a "natural" alloy, as it contains constituent metals in nearly the same proportions as the ore.

It is made up of 67 per cent nickel, 28 per cent copper, 2½ per cent iron, 1½ per cent manganese, and small quantities of other metals.

Monel is a white metal. It can be rolled, cast, forged, and welded.

It resembles steel in strength and is ductile like copper and tough.

Monel metal is easily machined. It resists acids, alkalis, and general corrosive effects as well as superheated steam.

Besides, it maintains a big degree of tensile strength at high temperatures.

New Roster of Michigan Sheet Metal Auxiliary Shows 99 Members.

The 1922 roster of the Salesmen's Auxiliary to the Michigan Sheet Metal and Roofers' Association has just been issued in the form of a poster, so that the contractor may use it for ready reference when salesmen call on him.

The roll shows 99 members representing 79 firms and companies who are thus showing a special interest in the work and progress of the contractors' organization.

Two companies are represented by three members each, sixteen have two members each, and the remaining 61 have one member each.

Milwaukee Corrugating Company Issues New Price List.

Fully indexed for quick reference, the latest net price list of "Milcor" sheet metal building products and farm specialties, issued by the Milwaukee Corrugating Company, Milwaukee, Wisconsin, is convenient and helpful.

This net price list is confidential. It is intended for the sheet metal contractor's private use.

In selling to his customers, the contractor is advised to use the Milwaukee Corrugating Company's general catalog, prepared for that purpose.

Catalog No. 9 of Berger Brothers Company Is Available.

With numerous illustrations and complete descriptive details, Catalog No. 9 of Berger Brothers Company, 229-237 Arch Street, Phila-

delphia, Pennsylvania, is now available to the sheet metal trade.

In its pages are listed practically everything required by the sheet metal contractor, including tinners' tools, Parker steel sheet metal screws, and galvanized iron skylights.

What Is the Address of Duplex Metals Company.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

Will you kindly advise us where the offices of the Duplex Metals Company are now located?

Yours truly,

SUBSCRIBER.

—, Wisconsin, May 6, 1922.

Persistence Wins Business.

There is an example for the business man in the old Roman Cato.

Every day for twenty years Cato rose in the Roman Senate and loudly cried out that Carthage must be destroyed.

At first he found his colleagues unresponsive. The Roman populace laughed at him.

But he persisted day after day for twenty years. Finally all Rome came to agree with him that he was right. And in the end a Roman army razed Carthage.

Cato's twenty-year persistence had won.

Cato advertised his policy, and he appreciated the value of a follow-up.

If he hadn't persisted he would never have succeeded.

Every advertising problem is similar to Cato's. It may not take twenty years for an advertising campaign to succeed, but it takes repeated appeals to assure the right results.

Perhaps the best investment a man can make is in himself. The man who spends his time and money in increasing his own earning capacity will get the very best of dividends.

Notes and Queries

Tinners' Steel Rules.

From R. W. Tyler, 34 North First Street, Canton, Illinois.

Who makes tinners' steel rules 3 or 4 feet long?

Ans.—Lufkin Rule Company, Saginaw, Michigan, and Peck, Stow and Wilcox Company, Southington, Connecticut.

Tile Roofing.

From Morris R. Ehle, Wayland, Michigan.

Kindly give me the names of firms manufacturing tile roofing.

Ans.—Mound City Roofing Tile Company, 3301 Morganford Road, St. Louis, Missouri; Murray Roofing Tile Company, Cloverport, Kentucky; O. W. Ketcham, 24 South 7th Street, Philadelphia, Pennsylvania; Des Moines Clay Company, Des Moines, Iowa; and William H. Vallas, 2855 West Lake Street, Chicago, Illinois.

Used Sheet Metal Machinery.

From Industrial Roofing Contractors, Mattoon, Illinois.

Please tell us what firms handle used sheet metal machinery.

Ans.—B. L. Saltzman, 524 West Van Buren Street; and Charles Molitor Machinery Company, 118 South Clinton Street; both of Chicago, Illinois.

18 Gauge Galvanized Iron.

From E. E. Bennett, Apalachicola, Florida.

Can you tell me where I can buy some 18 gauge galvanized iron $\frac{3}{4}$ inches wide?

Ans.—Joseph T. Ryerson and Sons, 2558 West 16th Street, Chicago, Illinois.

Humidifier.

From G. A. Bennett, Hart Manufacturing Company, 2006 High Street, Louisville, Kentucky.

Please advise me who makes a humidifier for cast iron warm air furnaces of the kind which consists of a water pan to be placed over the radiator with a supply tank and valve float connection on the outside of the casing.

Ans.—Kansas City Furnace Company, 326 West 6th Street, Kansas City, Missouri.

Review of Conditions in the Metal Markets.

General Situation in the Steel Industry. Report of Prices and Tendencies in Sheet Metals, Pig Iron, etc.

EXPECT HIGHER PRICES IN COPPER.

Indications point to a trend toward higher prices in the copper market. Copper is still quotable at from 13 to 13½ cents for electrolytic delivered through May, June and July.

It is quite evident, however, that the amount of metal available at the lower limit of the range is becoming smaller each day.

In fact, some consumers report difficulty in obtaining their present requirements at the lower prices.

However, some of the large selling agencies are still quoting 13 cents and some of the large producers state that their price is from

At any rate, the market is in process of being forced up another notch, and in all probability unless some adverse circumstances develop will be firm at the higher price before the week is out.

Exports for the first nine days in May are in excess of 15,000,000 pounds, which is a very encouraging feature.

Owen D. Young, vice president of the General Electric Company and chairman of the Board of Directors of the Radio Corporation of America, who has recently returned from Europe, reports that practically all of the new French rolling stock for railroads will be electrically equipped.

The Paris & Orleans Railroad has recently contracted for \$14,000,000 of electric locomotive and other equipment.

Westinghouse and General Electric will share in the contract.

Italy is also making rapid progress in electrification of industrial plants, utilizing as never before her abundant water power for electrical development.

Copper wire and rods are again ½ cent higher in sympathy with the advance in the price of unwrought metal.

There is a fair steady demand for both drawn and rolled copper and brass products. The improvement has been setadly for several weeks.

Increased signs of activity are evident in the copper and brass plants of Detroit. The greater share of these two products are utilized by the automobile in this territory—feed pipes, tubing, mountings, cylinders, etc.—so that continued production of auto means continued business in brass.

For some reason, which is unexplained, most of the automobile manufacturers appeared to have had considerable supplies of brass and copper on hand and it is for this reason that the Spring rush has not had an earlier effect.

Stock on hand has been depleted, however, and large orders, asking for immediate delivery are being received.

Reports from all over Michigan state that plants and foundries are running close to capacity, with more men being added to the payroll from time to time.

Some of the plants even report orders on hand guaranteeing continued work for all hands for at least 90 days.

Tin.

In New York, the spot price for tin is nominally 30½ cents, but the market is so limited that it could be bid up or offered down ⅛ cent on a comparatively small tonnage. The majority of the dealers neither care to buy nor sell.

The same lots of Banka tin continue to be offered for sale day after day, and while the price is now down to 30¼ cents for prompt and 30⅛ cents for import we do not hear of any sales reported.

The efforts to dispose of larger quantities of Banka tin than our consumers are willing to absorb is likely to have a bad effect on the

tin market generally, for instead of buyers accepting the importers' claim that Banka is cheap in relation to Straits they may reverse the argument and say that Straits is too much above the price of Banka.

Lead.

In its review of the lead market for April the "Steel and Metal Digest" says that the advance of \$2 a ton in the price of lead which was announced on March 30th, was in itself the reflection of an increased demand, but it immediately had the effect of bringing in more buyers, and on a large business the leading interest raised its price four times during April for a total of \$9 a ton.

The last advance which was announced on April 24th established the "official" price at 5¼ cents New York, but the demand was so insistent that sales were made in the "outside" market as high as 5½ cents New York and 5.30 cents St. Louis.

Up to the middle of March, the St. Louis price was nothing more than steady at 4.40 cents and the advance to 5.30 cents or \$19 a ton in a little over a month illustrates the buoyant state of the market backed by optimistic opinions and, what is more important, solid and substantial buying orders.

Solder.

Chicago prices of solder remained unchanged during the week.

The quotations now in effect are as follows:

Warranted, 50-50, per 100 pounds, \$21.50; Commercial, 45-55 per 100 pounds, \$20.00; and Plumbers', per 100 pounds, \$18.75.

Zinc.

The zinc market continues to accumulate strength, notwithstanding the fact that the metal is being offered more freely in England, and

that our export prospects are the present mainstay of the market. The zinc smelter of the Anaconda is running at capacity.

It seems more than ever likely that export trade of some dimensions may develop, as in the absence of domestic activity the market here has held its level while the foreign price has come closer to possible business.

On the whole, however, it is a waiting market, with little disposition on the part of sellers to offer freely and very limited consuming demand.

The latter condition bids fair to continue while the coal strike remains unsettled, though recently as reported, some good-sized orders have appeared sporadically.

Sheets.

Notwithstanding the fact that an advance of \$5 per ton has been made by several Eastern makers of steel sheets, the leading independent producer in Chicago is holding to schedule on all grades.

This independent company is booked up for 60 to 90 days at full production and can offer no delivery until July or August.

Demand continues strong and some business is being refused because of inability to meet delivery requirements.

Tin Plate.

Reports from Pittsburgh are to the effect that buying of tin plate has continually grown lighter in the past few weeks and the market is now distinctly inactive.

As noted in these reports for some time past tin plate consumers were particularly fore-handed this year in covering their requirements, so that the present condition of trading is perfectly natural and does not indicate any weakness developed in the situation.

The mills have large order books still, representing on an average several weeks of full production, which with the ordinary business that is coming in all the time indicates that they will have a fairly high rate of operation for an indefinite time.

The main point is the operation in June and July, for there is usually a revival in demand late in the Summer, and most of the mills seem to expect nearly full operation in those months, which means that they have good prospects, barring accidents, until say October 1st.

Old Metals.

Wholesale quotations in the Chicago district which should be considered as nominal are as follows: Old steel axles, \$15.50 to \$16.00; old iron axles, \$21.50 to \$22.00; steel springs, \$15.50 to \$16.00; No. 1 wrought iron, \$13.50 to \$13.00; No. 1 cast, \$15.50 to \$16.00 all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 8 cents; light brass, 4½ cents; lead, 4 cents; zinc, 2½ cents; and cast aluminum, 9¼ cents.

Steel Ingots Are Now Being Produced at an Annual Rate of About 37,000,000 Tons.

Very Few Price Changes Are Reported among Finished Steel Products, but the Level for Semi-finished Steel Is Up.

STEEL ingot production for April by three companies representing about 84.2 per cent of the country's steel capacity was 2,439,246 gross tons, an increase of 68,495 tons, as compared with a gain of 625,729 tons in March, according to the American Iron and Steel Institute.

Assuming that those companies not reporting produced at the same rate the output for the entire country was 2,896,966 tons, an increase of 81,348 tons as compared with a gain of 746,325 tons during the month preceding.

At the present time steel ingots are being produced at an annual rate of between 36,000,000 and 38,000,000 tons, which compares with a rate of 35,000,000 tons at the beginning of April, 30,000,000 tons at the beginning of March, 17,000,000 tons at the close of 1921, 25,000,000 tons the first of November, 1921, 10,000,000 tons the middle of July, 1921, and 42,000,000 tons as an av-

Pig Iron.

The future of the pig iron market is decidedly speculative and for this reason both maker and user have more or less generally assumed a waiting attitude.

the top has about been reached and that he is not taking a very long chance on waiting until he actually needs iron rather than anticipating his future requirements at present prices.

On the other hand the producer is willing to gamble on the outcome and consequences of the coal strike and its effect on the coke situation.

He believes that the strike soon will be over and that he will be able to get cheaper coke.

When this is realized he may have to sell his iron at a lower level, but again he may be able to find a market for it around the present level or a little higher.

erage for the first nine months of 1921.

Strip steel, hot rolled, is quoted at from \$2 to \$2.10 per 100 pounds, but some business is reported to have been taken at \$2.25 and the market demand is strong.

Cold rolled is firm at \$3.65.

Structural steel is very active and local warehouses report a sudden expansion demand in this item from builders who can not wait for mill deliveries.

During April the amount of construction work started in the northeastern part of the country was valued at \$353,000,000, which is a new high record for all time.

The previous record was made in July, 1919, when contracts to the total of \$317,000,000 were entered into.

There was an increase in every important class of construction work in April, even in industrial plants, which have been the last group to pick up.

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

PIG IRON.

Chicago Foundry...	22 00
Southern Fdy. No. 2,	23 66
Lake Sup. Charcoal	28 00
Malleable	22 00

FIRST QUALITY BRIGHT TIN PLATES.

	Per Box
IC 14x20 112 sheets	\$10 00
IX 14x20.....	11 25
IXX 14x20.....	12 60
IXXX 14x20.....	13 90
IXXXX 14x20.....	15 25
IC 20x28.....	20 00
IX 20x28.....	22 50
IXX 20x28.....	25 20
IXXX 20x28.....	27 80
IXXXX 20x28.....	30 50

COKE PLATES.

Cokes, 180 lbs....	20x28 \$11 80
Cokes, 200 lbs....	20x28 12 00
Cokes, 214 lbs....	IC 20x28 12 35
Cokes, 270 lbs....	IX 20x28 14 10

BLUE ANNEALED SHEETS.

Base	per 100 lbs. \$2 35
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ONE PASS COLD ROLLED BLACK.

No. 18-20.....	per 100 lbs. \$4 10
No. 22-24.....	per 100 lbs. 4 15
No. 26.....	per 100 lbs. 4 20
No. 27.....	per 100 lbs. 4 25
No. 28.....	per 100 lbs. 4 30
No. 29.....	per 100 lbs. 4 40

GALVANIZED.

No. 16.....	per 100 lbs. \$4 55
No. 18-20.....	per 100 lbs. 4 70
No. 22-24.....	per 100 lbs. 4 85
No. 26.....	per 100 lbs. 5 00
No. 27.....	per 100 lbs. 5 15
No. 28.....	per 100 lbs. 5 30
No. 29.....	per 100 lbs. 5 80

BAR SOLDER.

Warranted.	
50-50	per 100 lbs. \$21 50
Commercial.	
45-55	per 100 lbs. 20 00
Plumbers	per 100 lbs. 18 75

ZINC.

In Slabs	5 50
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SHEET ZINC.

Cask lots, stock.....	3 1/2 c
Less than cask lots.....	3 c

COPPER.

Copper Sheet, mill base...	\$0 19
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LEAD.

American Pig	\$5 75
Bar	6 60

Sheet.

Pull coils	per 100 lbs. 8 00
Cut coils	per 100 lbs. 8 25

TIN.

Pig tin	per 100 lbs. 34 10
Rar tin	per 100 lbs. 36 10

HARDWARE, SHEET METAL SUPPLIES, WARM AIR HEATER FITTINGS AND ACCESSORIES.

ADZES.

Coopers'.	
Barton's	Net
White's	Net

AMMUNITION.

Shells, Loaded, Peters.	
Loaded with Black Powder 18%	
Loaded with Smokeless Powder	18%

Winchester.	
Smokeless Repeater	
Grade	20 & 4%
Smokeless Leader	
Grade	20 & 4%
Black Powder	20 & 4%

U. M. C.	
Nitro Club	20 & 4%
Arrow	20 & 4%
New Club	20 & 4%
Gun Wads—per 1000.	

Winchester 7- 8 gauge 10&7 1/4%	
" 9-10 gauge 10&7 1/4%	
" 11-35 gauge 10&7 1/4%	

ASBESTOS.

Paper up to 1/16	6c per lb.
Rollboard	6 1/4 c per lb.
Millboard 3/32 to 1/4	6c per lb.
Corrugated Paper (250 sq. ft. to roll)	\$6.00 per roll

AUGERS.

Boring Machine 40 @ 40&10%	
Carpenter's Nut	50%
Hollow	
Honey's	per doz. \$30 00
Post Hole	
Iwan's Post Hole and Wall	30 and 5%
Vaughan's, 4 to 9 in., without handles per doz.	\$14 00

AWLS.

Brand.	
No. 3 Handled	per doz. \$0 65
No. 1050 Handled	1 40
Patent asst'd, 1 to 4	35

Harness.	
Common	per doz. \$1 05
Patent	1 00

Peg.	
Shouldered	1 60
Patented	75

Scratch.	
No. 18, socket	
Handled	per doz. \$2 50
No. 344 Goodell.	
Pratt, list less	35-40%
No. 7 Stanley	per doz. \$3 25

AXES.

First Quality, Single Bitted (unhandled), 3 to 4 lb., per doz.	\$11 00
Good Quality, Single Bitted, same weight, per doz.	10 00

BALANCES, SPRING.

Universal.	
Sight Spring	List less 25%
Straight	List less 25%

BARS, WRECKING.

V. & B. No. 12.....	\$0 45
V. & B. No. 34.....	0 75
V. & B. No. 324.....	0 80
V. & B. No. 30.....	0 85
V. & B. No. 330.....	0 90

BEVELS, TEE.

Stanley's Rosewood handle, new list	
Stanley Iron handle.....	Nets

BINDING CLOTH.

Zinc	55%
Brass	40%
Brass, plated	60%

BITS.

Auger.	
Jennings Pattern	Net
Ford Car	35% off
Ford's Ship	25% off
Irwin	35%
Russell Jennings	less 10%
Clark's Expansive	32 1/2%
Center	10%

Countersink.

American Smallhead ..	1 75
" Rose	2 00
" Flat	1 40

Dowel.

Russell Jennings	plus 20%
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Gimlet.

Standard Double Cut Gross	\$8 40
Nail Metal Single Cut	Gross \$4 00—\$5 00

Reamer.

Standard Square.....	Dox. \$2 50
American Octagon.....	" 2 50

Screw Driver.

No. 1 Common.....	Each 18c
No. 26 Stanley.....	Each 70c

BLADES, SAW.

Wood.	
Atkins 30-in.	
Nos.	\$ 40 26
" \$3 90 \$3 45 \$5 40	
Diston 30-in.	
Nos.	\$ 45 26
" \$4 55 \$10 05 \$9 45	

BLOCKS.

Wooden	20%
Patent	20%

BLOW TORCHES (See Firepots).

BOARDS.

Stove.	
26x26, wood lined.....	Per doz. \$14 45
28x28, "	16 55
30x30, "	19 00
26x26, paper lined.....	8 15
28x28, "	9 10
30x30, "	10 30

Wash.

No. 760, Banner Globe (single)	per doz. \$5 25
No. 652, Banner Globe (single)	per doz. 6 75
No. 801, Brass King, per doz.	3 25
No. 860, Single—Plain Pump	6 25

BOLTS.

Carriage, Machine, etc.	
Carriage, cut thread, 1/4x6 and sizes smaller and shorter	60 & 5%
Carriage sizes, larger and longer than 1/4x6	50 & 10%
Machine, 1/4x4 and sizes smaller and shorter	60 & 10 & 5%
Machine, sizes larger and longer than 1/4x4	60 & 5%
Stove	80%

Mortise, Door.	
Gem, iron	5%
Gem, bronze plated	5%

Barrel.	
Cast	Net
Wrought	"
Wrought, bronzed	"

Finish.	
Wrought	Net

Spring.	
Wrought	"
Wrought, heavy	"

Square.	
Wrought	"

BOXES.

Mail, No. 2	10
Per doz. \$18 00 \$23 00 \$29 00	
Cast Iron.	
Per doz.	\$9 50

Mitre.	
Stanley's	Net Prices
Stearns, No. 2, per doz.	\$48 00

BRACES, RATCHET.	
Goodell-Pratt No. 408.....	\$4 60
" No. 410.....	4 80
" No. 412.....	5 00
V. & B. No. 444 3 in.....	4 45
V. & B. No. 333 3 in.....	4 20
V. & B. No. 222 3 in.....	4 00
V. & B. No. 111 3 in.....	3 50
V. & B. No. 11 3 in.....	3 05

BURRS, RIVETING.	
Copper Burrs only.....	50%
Tinners' Iron Burrs only.....	Net

BUTTS.

Steel, antique copper or dull brass finish—case lots—	
3 1/2 x 1 1/2	per dozen pairs \$2 75
4x4	3 80
Heavy Bevel steel inside sets, case lots—	
"	per dozen sets 7 50
Steel bit keyed front door sets, each	1 80
Wrought brass bit keyed front door sets, each.....	3 25
Cylinder front door sets, each	7 00

CALIFERS.

Double	Net
Inside and Outside.....	"
Wing	"

CARRIERS.

Hay.	
Diamond, Regular.....	each, nets
Diamond, Sling	"

CASTERS.

Standard—Ball Bearing.	
.....	50 & 10%
Bed	40%

Common Plate.	
Brass Wheel	15%
Iron and porcelain wheels, new list	50%
Philadelphia Plate, new list	50%
Martin's	40%

CATCHERS, GRASS.

No. 1608.....	per doz. \$12 25
No. 1658.....	14 01

CEMENT, FURNACE.

American Seal, 5 lb. cans, net	\$0 45
" 10 lb. cans, "	90
" 25 lb. cans, "	1 87
Asbestos, 5 lb. cans.....	45
Pecora, 5 lb. cans.....	45
" 10 lb. cans.....	90
" 25 lb. cans.....	1 87

CHAINS.

Breast Chains.	
With Slide	doz. pairs, \$5 50
Without Slide	5 00
Doubleblack	9 35
With Covert Snaps	6 35

Picture Chains.	
Light brass, 3 ft., per doz.	1 25
Heavy brass, 3 ft.	1 75

Sash Chain. (Morton's)	
Steel, per 100 ft.	
0	\$2 50
2	3 10
1	3 60

Champion Metal.	
0R	5 40
1R	5 60
2R	7 75

Champion Metal—Extra Heavy.	
1H	\$9 50

Cable Sash Chains.	
Steel	List Net Plus 15%

CHALK, CARPENTERS.	
Blue	per gro. \$2 00
Red	" 2 00
White	" 1 80
Common White School Crayon	6 30

CHIMNEY TOPS.	
In bags	per bag \$1 80

CHECKS, DOOR.	
Corbin	Net list
Russwin	Net list

CHISELS.	
Cold.	
Good quality, 1/4 in., each	\$0 44
" 1/2 in., "	0 35

Diamond Point.	
V. & B. No. 15, 1/4 in.....	0 33
V. & B. No. 15, 1/2 in.....	0 45

Firmer Bevelled.	
Round Nose.	
V. & B. No. 65, 1/4 in.....	0 33
V. & B. No. 65, 1/2 in.....	0 44

Socket Firmer.	
Cape.	
V. & B. No. 50, 1/4 in.....	0 29
V. & B. No. 50, 1/2 in.....	0 64

CHUCKS, DRILL.	
Goodell's, for Goodell's Screw Drivers	List less 25-40%
Yankee, for Yankee Screw Drivers	\$8 00

CHURNS.	
Anti-Bent Wood.	
Gal.	5 7 10
Each	\$3 00 4 60 4 85
Belle, Barrell	65 & 7 1/4%

Common Dash.	
Gal.	5 7
Per doz.	\$17 00 19 00

CLAMPS.	
Adjustable.	
Martin's	30%
No. 63, Screw	30%
Cabinet.	
Screw	30%